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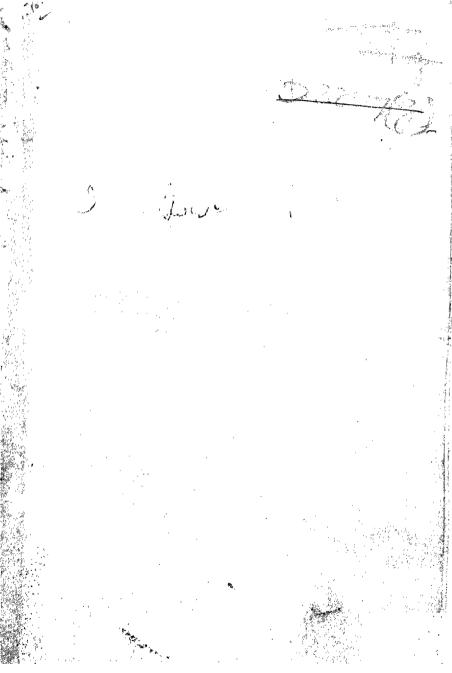
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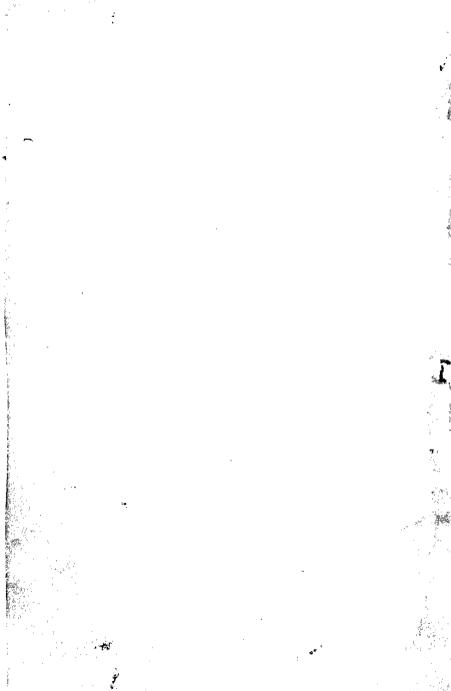
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STUDIES

IN



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ANCIENT HINDU POLITY

(BASED ON THE ARTHASÂSTRA OF KAUŢILYA)

VOL. I.

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BY

NARENDRA NATH LAW, M.A., B.L.

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WITH AN INTRODUCTORY ESSAY

ON THE AGE AND AUTHENTICITY OF THE ARTHASÂSTRA
OF KAUTILYA

BY PROF. RADHAKUMUD MOOKERJI, M.A. REMCHAND ROYCHAND SCHOLAR, AUTHOR OF "A HISTORY OF INDIAN SHIPPING," ETC.

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TO

MY FATHER

THE HON. RAJA RESHEE CASE LAW, C.I.E.

THIS SMALL TRIBUTE

OF

GREAT AFFECTION



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PREFACE

In the present work an attempt is made to describe some of the features and activities of the civil government of the ancient Hindus, as outlined in the Arthasastra of Kauṭilya. Such an attempt will, I trust, be useful in throwing some light on the secular and practical achievements of the ancient Hindus, as distinguished from the spiritual and intellectual, which latter are more widely studied and appreciated than the former.

I am, however, painfully conscious of the difficulties with which the subject is beset. The quaint and terse language of Kautilya, combined with the technical terms used by him, adds much to the difficulties. The Commentary of Bhattasvâmî is fragmentary and confined only to a portion of the Second

Book. I should, however, acknowledge my indebtedness to the edition and translation of the work by Mr. R. Shama Sastri, B.A., whose pioneering work has paved the way for the investigations of other scholars.

My deep gratitude is due to Prof. Radhakumud Mookerji, M.A., Premchand Roychand Scholar and author of "A History of Indian Shipping," for valuable help rendered and for the Introduction he has written to this work. I am also thankful to Pundit Jogendranath Tarka-Vedânta-tîrtha and Pundit Vihdusekhar Sastri for their kind assistance. and to my uncle, Mr. Nanda Lal Dey, M.A., B.L., author of the "Geographical Dictionary of Ancient and Mediæval India," for his valuable suggestions. My acknowledgments are likewise due to Mr. Ramananda Chatterji, M.A., editor of the Modern Review, for his courteous permission to reproduce such portions of this work as appeared in his Review, and to Messrs. Surendra Nath Kumar, B.A., and Hiralal Roy, A.B., for their kind assistance; also to my brother Mr. Surendra Nath Law, and to Messrs. Kumud Lal Dey, Nalin Chandra Paul, B.L., Satya Churn Law,

M.A., and Moni Mohun Sil, for the help I have received from them.

I am fully conscious of my own limitations and the difficulty of the task before me; and I shall consider my labour amply rewarded if my inadequate performance secures for the subject a proper attention and treatment.

NARENDRA NATH LAW.

96, Amherst Street, Calcutta.

August, 1913.

AN INTRODUCTORY ESSAY ON THE AGE AND AUTHENTICITY OF THE ARTHAŚÂSTRA OF KAUTILYA.

By PROF. RADHAKUMUD MOOKERJI, M.A.,
Premchand Roychand Scholar, Author of A History of
Indian Shipping, etc.

In response to the request of Mr. Law, I have much pleasure in saying a few words on the probable age of the now famous work, the Arthasâstra of Kautilya, the importance of which for the history of culture can hardly be overestimated. To students of Indian history in particular, an approximate determination of the period to which the Arthasastra relates itself is a most pressing problem demanding immediate solution, for on that will depend much of the reconstruction of early Indian history, as well as a true interpretation and appreciation of ancient Hindu culture. The Arthasâstra, as will be amply evident from Mr. Law's Studies, is a unique record of the secular and practical activities and achievements of the Hindu genius as distinguished

from the intellectual and spiritual, of which there is so much evidence in the extant Sanskrit and Pâli literature, and of which so much has been said and written; and a proper study of this most interesting work is well calculated to remove one of the widespread and deep-rooted misconceptions about ancient Hindu civilization, which is supposed to have distinguished itself only in the sphere of thought, and to have miserably failed in that of action.

In the following pages an attempt will be made to summarize the arguments which may be advanced in support of the traditional and widely current view that the *Arthaiastra* of Kautilya is the work of Chanakya, the Minister of Chandra Gupta, and therefore belongs to the fourth century B.C.

That Kautilya and Chânakya are names of the same person is well known to students of Sanskrit literature. In fact, Chânakya is known by several names, which are thus

¹ Sankarârya in his Jayamangalattkâ on Kâmandaka refers to the names thus: "विष्णुगुप्तायित संस्कारिकी संज्ञा, साणकाः कौटिन्छ इति जनसभूमि गोत्र निवन्धने." Bâchaspati Misra in his तात्पर्यो टीका calls Bâtsyâyana, the author of Nyâya-

enumerated by Hemachandra in his Abhidhâ-nachintâmani:

वात्स्यायने मक्षनागः कुटिसस्यणकात्मजः। द्रामितः पश्चिससामी विष्णुगृत्रोऽद्रुतस्य सः॥

Equally well known is the fact of Châṇa-kya's connexion with the Emperor Chandra Gupta Maurya, with its political consequences. Evidence of this may be derived from a variety of sources. Thus the Vishnupurâṇa narrates in its prophetic style that "the Brâhmaṇa Kauṭilya shall root out the nine Nandas, inaugurating Chandra Gupta in the kingdom." So also the Bhâgavatapurâṇa has the following: "A Brâhmaṇa will destroy these nine Nandas,

bhdshya, by the name of Pakshilaswami. Thus he says:
"ब्रां भगवता च्चपादेन नि:त्रेयचन्देतीमास्त्र प्रचितिष्युत्पादिते
च भगवता पचिज्ञसामिना किमप्रमविष्यते यद्धे वार्तिकारमाः ॥" The Vârttika is, of course, the well-known Commentary on the Nyâyabhâshya by Udyotakara, who wrote it in order to overcome the sophistical arguments and mystifying logic of the Buddhists ["कुताकिकचान-निराचन्तोः । करिष्यति तस्य भया निवन्नः ॥"] headed by Dinnâga as explained by Bâchaspati Miśra ["कुताकिकादिङ्नामप्रभूतयः"]. This statement, by the way, places the age of the Nyâyabhâshya also before that of Buddhist propaganda dating from Asoka.

¹ XXIV, 6-7: ''नवैव तान् नन्दान् कौटिस्यो बाह्मणः सनुद-रिष्यति ... कौटिस्य एव चन्द्रगुप्तं रान्धेश्मिषेस्यति।''

who will inaugurate Chandra Gupta as king."1 There are also similar references in the Matsua. Vâyu and Brahmânda Purânas to Kautilya's bestowal of the sovereignty on Chandra Gupta.2 In his Sthavirâvalîcharita, or "Lives of Jaina Patriarchs," Hemachandra gives an account of Chanakya which, though legendary, agrees with the Puranas in making him the extinguisher of Nanda supremacy and supporter of Chandra Gupta. In the Nandisûtra, again, which is a Jaina religious work in Prâkrit language, Chânakya is extolled for the signal success which he achieved as Finance Minister of Chandra Gupta. In the Jaina work Rishimandalaprakaranavritti there is a reference to the alliance of Châṇakya with Chandra Gupta, who seized the kingdom by slaying Nanda. Among the Buddhist works recording the same fact may be mentioned Buddhaghosha's Commentary, Samantapasâdikâ, on the Vinaya Piṭaka, as well as the Mahâvansaţîkâ of Mahâ-

¹ II, i, 11-12: " नवनन्दान् द्विजः किस्त् प्रपन्नानुद्वरिष्यति ... स एव चन्द्रगुप्तं वै द्विजो राज्येःभिषेच्यति।"

² "कीटिखाः चन्द्रगुप्तंतु ततो राज्येश्मिषेच्यति" [Matsya] and "चन्द्रगुप्तं नृपं राज्ये कोटिखाः खापियधिति" [Vâyu and Brahmanda].

namasthavira. Kamandaka [Nîtisâra] also refers to the overthrow of the Nanda dynasty and the inauguration of Chandra Gupta in a very forcible passage. The same fact, as is well known, has supplied the basis of the drama Mudrârâkshasa. Finally, we may refer to the evidence of the Arthasâstra itself, as set forth in one of its concluding verses, where it is stated that the Arthasâstra is composed by "him who with angry determination rescued (the Brâhmana's) learning and (the Kshatriya's) art, as also the mother-country, from the clutches of the Nanda kings."

ग्याभिचार वच्चेण वच्चचलन तेज्यः। पपात मूलतः श्रीमान् सुपर्वा नन्दपर्वतः॥ एकाकी मन्त्रशत्या यः शत्या शत्तिघरोपमः। खाजाचार मृचन्द्राय चन्द्रगुप्ताय मेदिनीम्॥ [I, 4-5.]

["Salutation unto one whose fire of energy was like the flash of lightning, and through whose magical powers, that resembled in potency and fury the thunderbolt itself, the widespread, prosperous, powerful, mountain-like dynasty of Nanda was overturned."]

येन शास्त्रं च शस्त्रं च नन्दराजगता च भूः। चनवें णो इतान्या श्रः तेन शास्त्र निदंशतम्॥

The "rescue of learning" would be either a vain boast or would seem to favour the traditional Indian view, widely current among orthodox Hindu Pandits and scholars, that all the three works, viz. Nydyabhashya, Kamasatra, and Arthasastra, which

xiv INTRODUCTORY ESSAY

So much about the fact of the political association of Kautilya with the Emperor Chandra Gupta. We shall now consider the evidence proving that the fact of Kautilya's authorship of Arthasâstra is well known in Sanskrit literature. The two principal sources of that evidence are (1) the Nîtisâra of Kâmandaka and (2) the Dasakumáracharita of Dandî, both of which accept the genuineness of the Arthasâstra as the production of Chânakya. Kâmandaka, at the beginning of his Nîtisâra, says: "Salutation unto the learned Vishnu Gupta, who raised the ambrosia of political science out of the vast ocean of the Arthasastra. As this science is very much liked by kings, I shall make a brief but clear abridgment of the treatise of that learned scholar who was a

are acknowledged authorities in their respective subjects, had a common author, and that that author was Chanakya. Compare in this connexion the enumeration of Chanakya's names in Abhidhanachintamani quoted above. The boast about "rescue of learning" is also supported by Kamandaka, who refers to Chanakya's encyclopædic learning in such phrases as "यो वस्त्र मिन विश्वतः," "वेदविद् वरः," "विदान पर्दश्याः," etc. Another significant fact to be noted in this connexion is the identity of numerous passages in the three works named above, pointing to their common origin. The whole subject, however, deserves a critical investigation.

master of all branches of knowledge."1 hardly necessary for our present purpose to prove by quotations that with Kâmandaka the work of Kautilya was not a mere tradition but an actual masterpiece, which has been throughout his Nîtisâra used as his original authority, even supplying many of his words and phrases. Nay, Kâmandaka has, it may be said, abridged by making omissions: the entire portions of the second, third, fourth and fourteenth Books of the Arthasâstra find no place in the Nîtisûra. Thus the work of Kâmandaka supplies very good evidence to show that the work of Kautilya was a reality. The second piece of evidence bearing on the point is furnished by the Dasakumâracharita of Dandî. In the Somadatta-utpattikathâ [1. 1] there is a reference to both Kautilya and Kâmandaka as authorities on Nîtisâstra,2 while in the eighth chapter of Part II occurs the following remarkable reference to Kautilva⁸:

> दर्भनात् तस्य सहस्रो विद्यानां पारहञ्चनः। राजविद्या प्रियतया संचित्रग्रन्थमर्थवत्॥ [I, 7.]

^{2 &#}x27;' कौटिख-कामन्दकीयादिनीतिपटलकी ग्रसं . . . ''

^{3 &#}x27;'... इयिमदानीं चाचार्यविखागुत्रेन मीर्थार्थे वड़िम: स्नोक-सन्दर्भे: संचित्रा ...''

xvi INTRODUCTORY ESSAY

"The science of Dandanîti (Politics) has been of late abridged into 6000 slokas by Achâryya Vishnu Gupta for the benefit of the Maurya." The results of a study of that work, difficult as it is, requiring a knowledge of various other sciences, are ironically described by Vihârabhadra (to dissuade his king from its study) in a long passage which bristles with quotations from the Arthasâstra. Thus one of the results is stated to be that the reader will have to gravely decide what quantity of rice will be required to satisfy his appetite 1 [" बालक चेरिय कते तख्बी: इयद्भि: इयानोदन: सम्पयते "]; what quantity of fuel will cook a certain quantity of rice2 [" इयत चोदनस्य पाकायएतावत् इत्यनं पर्याप्तिसित सानीना-नप्रचैत देयम्।"]. Next follows a sarcastic enumeration and criticism of the king's daily duties according to Chânakya, which closely follows that of the text before us. Thus the following expressions have been borrowed from the Arthašâstra 8:

¹ Cf. Arthasâstra, Bk. II, ch. xv, where quantities of food are determined for the higher castes (चार्य), lower castes (चवर), for women, and also for children.

² Cf. Arthaidstra, Bk. II, ch. xix: "काष्ट्रपश्चविंश्तिपसं त्रख्लप्रस्थाधनम्।"

³ See the chapter on राजप्रविधि: of the first Book.

"चायवयजातं चक्कः प्रथमेश्यमे भागे श्रोतव्यम्"; "दितीये चन्योश्नयं विवदमानानां प्रजानां चाक्रीणेः दच्चमानकर्णः कष्टं जीवित"; "त्वतीये स्नातुं भीकृष लभते"; "चतुर्थे दिरण्पप्रतियद्याय दसं प्रसारयम्ब जिल्हाति"; "पश्चमे मन्त्रचिन्यया मद्यान्तमायासं चनुभवित ... मिथः सभुय दोषगुणो दुतचार-वाक्यानि ... जपजीविन्ता"; "षष्टे सेरिविद्यारः मन्त्रो वा सेवः"; "सप्तमे चतुरक्रवसः प्रत्यवेचण प्रयासः"; "चष्टमे सेनापितस्वस्य विक्रमिचनाक्कोणः"; "पुनः जपास्य एव सन्ध्यां प्रथमे राचिविभागे गूढ़ पुर्वाः द्रष्ट्याः"; "दितीये भोजनान्तरं श्रोचिय द्रव साध्यायं चारदते"; "दतीये त्रूर्यघोषेण संविष्टः"; "चतुर्थपद्यमी श्यीत"; "पुनः षष्टे शास्त्रचिन्ता काव्यचिन्तारसः"; "सप्तमे मन्त्रपद्यः दूतादि प्रषणानि च"; "इष्टमे पुरोह्तितादयः ऋथेत्य एनमाद्यः"।

Thus these borrowings of Daṇḍî from the Arthasâstra are a further proof that the work had an actual existence, and that it was the production of Châṇakya.

Among other Sanskrit works which also allude to the Kauţilîya Arthaśâstra may be mentioned the Nandisûtra¹ of the Jainas, the Pañchatantra² and the Nîtivâkyûmrita³ of Somadeva. Lastly, we may refer to the evidence of numerous quotations from Kauţilya in Mallinâth's Commentary on Kâlidâsa's

¹ P. 391, Calcutta ed., quoted in I. A., Jan., 1905, p. 6.

² Ch. i.

⁸ Edited in the Kâvyamâlâ Series, Bombay.

xviii INTRODUCTORY ESSAY

Raghuvansu and other works.¹ Even Kâlidâsa would appear sometimes to borrow phrases of Kauṭilya's book.²

We have now considered the available evidence proving (1) the political connexion of Kautilya with Emperor Chandra Gupta Maurya, and (2) the existence of the Kautiliya Arthasâstra as a literary work. It now remains to prove that that work is the production of an individual author and not of a

¹ E.g. Mallinath on Raghuvansa, Sarga 17, sloka 49: " अन्न कीटिन्स: — कार्याणां नियोग-विकल्प-समुन्या भवनि अनेनेवी-पायन नार्यनेति नियोगः अनेन अर्थनेति विकल्पः अनेन चेति समुन्यः इति," which is taken from the Arthasastra, Bk. IX, ch. vii, pr. 147. Ibid., sloka 55: " अन्न कीटिन्सः — चीणाः प्रक्रतयो खोभं खुव्यायान्ति निरागताम्। विरक्ता यान्यमिनं वा भन्नीरं चन्नि वा ख्यम्," which corresponds to Artha., Bk. VII, ch. v, pr. 108-110. Ibid., sloka 56: "अन्न कीटिन्सः — समन्यायोगं सन्यीत चीनेन निरक्तीयात्," which corresponds to Artha., Bk. VII, ch. ii, pr. 101-2. Ibid., sloka 76: " सन्वप्रमानीत्साच्यत्तिभः परान् सन्यथात् इति कीटिन्सः," which corresponds to Artha., Bk. VII, ch. xv, pr. 117-120. Ibid., sloka 81: " दुवेजो वज्वत्सेयी वर्षाच्यात्तिभः। वन्ति सर्वायनतोभर्त्यवस्तिभः इति कीटिन्सः," which corresponds to Artha., ibid. Ibid., Sarga 18, sloka 50: " अन्न कीटिन्सः— धर्माधर्मी नयां अर्थानर्थी वार्णायां नयां स्वीटिन्सः," which corresponds to Artha., ibid. Ibid., Sarga 18, sloka 50: " अन् कीटिन्सः— धर्माधर्मी नयां अर्थानर्थी वार्णायां नयां स्वीटिन्सः (तंत्रं," which corresponds to Artha., Bk. I, ch. i, pr. 1.

² Thus the phrase " अभिष्य वसनेन of Kumårasambhava, VI, xxxvii, occurs in Bk. II, ch. i; similarly, Raghuvansa, III, xxviii, uses phrases of Kautilya, I, v, 3.

school, as is frequently the case with Indian treatises.

Fortunately, the above proposition has been argued at great length and in a quite convincing manner by the learned German orientalist Prof. Jacobi, who successfully combats Hillebrandt's view that Kautilya is not himself the sole author of the Arthaiastra. Hillebrandt based his view on the inference that the expressions "इति कौटिखः" and "नेति कौटिखः," occurring no less than seventy-two times in the text, show that it is not the work of an individual author named Kautilya but of a school. It is, however, forgotten that the use of the first person and the consequent assumption of prominence or self-assertiveness by an author who wants to refute opposite views is always repugnant to Indian feeling, and the other alternative of writing one's own name in that connexion is invariably followed as a piece of literary etiquette in India. Secondly, to say that a work is the production of a school would mean (i) that its alleged author was the founder of

xix

¹ Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften, xxxviii, 1912, pp. 882–849.

² Das Kautiliyasastra und Verwandtes, Breslau, 1908.

the school traced to him in which discussions lead to definite conclusions and the creation of a tradition which is handed down from teacher to students, and (ii) that the tradition so created is afterwards embodied in a bookform by later students. None of these assumptions would, however, apply to Kautilya, considering the historical position of the man who, according to unanimous tradition as explained above, played such an important part not only in the foundation of the Maurya empire, but also in its governance as its first Chancellor with his onerous State duties. As Prof. Jacobi well observes: "One can hardly imagine that Bismarck after his day's work should have held a conference with the professors of a college over politics and State administration, and it is hardly less improbable to assume that Kautilya, the Indian Bismarck, should like an ordinary Pandit surround himself with students, teach them the Arthasâstra, and found a school." The fact is, that the book begat the school, and not the school the book.

Nor do Kâmandaka's references to Kauţilya's work prove it to be the production of a school, as may be easily assumed; for Kâmandaka's

mention of Vishņu Gupta, i.e. Kauţilya, as his guru cannot be interpreted in the literal sense of the term so as to point to the origin of the Arthasâstra in a school. This is clear from the character of the Nîtisâra as well as from its contents. It is professedly an abridgment [" मंचित्र पन्य"] of the comprehensive work traced to Kautilya, which, though its principal source, is not, however, its only source, and is not also blindly followed. Kâmandaka is not a onesided follower of his master: he refers to the opinions of other राजविद्याविदः besides the authority of Kautilya; and there are points of agreement1 as well as difference2 between the Besides, Kâmandaka presents only a small part of the Arthasâstra and omits those very subjects which have a bearing on actual administration and which give so much value to Kautilya's work; for instance, such subjects as administration, control of trade and professions, justice, etc., as also universal maxims of government. The fact of the matter was that Kâmandaka was no practical statesman, but a Pandit fond of disputation and showing

¹ E.g. classification of knowledge.

² E.g. the theory of the Mandala or political sphere.

xxii INTRODUCTORY ESSAY

off political wisdom; and the use that he has made of Kautilya's work only strengthens our conviction that the work is not scholastically delivered tradition but bears the stamp of an individual author and his times.

The same conviction is also borne in upon us by the contents of the *Arthaśâstra* itself and its internal evidence, which we shall now proceed to set forth after Prof. Jacobi.

The first piece of internal evidence is furnished by the references of Kautilya to his predecessors, which betray the critical tendency unmistakably suggestive of an individual author. Thus Kautilya mentions his predecessors no less than 114 times-" पत्त कीरिया दर्भनं " occurring only once - and in all those numerous references Kautilya quotes opinions only to differ from them. This abundance of criticism, opposition and contradiction seems evidently to indicate a strongly marked individuality and a critical personality, and is quite in keeping with the spirit of the concluding verse referred to above about the author's justly claimed services to learning. Further. if Kautilya's work were the production of a

compiler of his school long after Kautilya's death, would there be any interest in the use of such forms as दान कोटिन्स: and नेनि कोटिन्स:, and repeatedly establishing that Kautilya's doctrines differed from those of his predecessors? And, in that case, would also the expression "दनि वाचार्याः," as applied to opponents, be used by a late student of Kautilya's school when it would also apply to Kautilya himself as an बाचार्या?

Secondly, we should note the fact that the two greater parts of the Arthasâstra contain no mention of opposite views, viz. pages 69-156 and 197-253 of the book, comprising parts of Books entitled अध्यसप्रचार, कप्रकशोधन, and योगदर्भ, the last chapter of which treats of the significant subject "What is to happen in cases of imminent vacancy of throne?" Those parts do not treat the general principles so much as practical regulations in detail, such as administration, control of trade and industry, the police, the budget, and the like, about which scholasticism has no need to trouble itself but which are of the greatest moment to the practical statesman. We accordingly find that in his treatment of those subjects Kautilya does not take

xxiv INTRODUCTORY ESSAY

any opportunity for controversy, and stands there all alone with no previous tradition to consider or criticize. This is also evident from the significance of the word "भाषभः" in the opening line of the book which refers to the previous Âchâryyas.

Next, we have to consider how Kautilya alludes to his predecessors. He uses both the plural and the singular number in respect of them, and in the former case he means the school,² and in the latter the individual author.³ What is worthy of note is that these sources are mentioned in a definite order in several places, which is probably not the chronological order, but rather seems to be the order of merit determined by Kautilya's own estimation, or the order determined by his convenience of discussion. The arranging of the $\hat{A}ch\hat{a}ryyas$ in such an arbitrary order is

^{1 &}quot;पृथिया लाभे पालने च यावनित अर्थशास्त्रानि पूर्व्वाचार्यैः प्रसापितानि प्रायमसानि चंह्रत्य एकनिद्मर्थशास्त्रं क्षतम्।"

² E.g. मानवाः, वार्डस्पत्याः, खीशनसाः, पाराश्रराः, etc.

³ *E.g.* भारद्वाजः, विश्वाचाचः, पिश्चनः, कौण्पद्नाः, दात-व्याधिः, वक्षद्नीपुनः, etc.

⁴ E.g. I, vi, 4, pp. 18 ff.:—भरद्वाज-विशासाच-परागर-पिश्वन-कोणपदना-वातव्याधि-बद्धनीपुच। The same order is seen on pp. 32 ff., and on pp. 325 ff.

possible only to a great master, and not to an ordinary writer of a text-book. It may also be noted in passing that the schools mentioned by Kautilya were not exclusively the schools of अर्थमास्त only, but of अर्थमास्त, which comprehended political discussion as a subsidiary topic. It seems that the अर्थमास्त did not differentiate itself as an independent school or branch of learning before Kautilya.

Fourthly, a careful consideration of the style of the Arthasâstra would also indicate its individual authorship. Broadly speaking, the course of literary development in India embraces three well-marked stages: in the first stage the previously accumulated tradition or discipline undergoes development in through a school or schools devoted thereto; the second stage is that of the composition of Sûtras, which lead to some siddhântas, or definite formulæ and conclusions, the exposition of which is conducted by the school, though the contents receive thereby a further expansion; the third stage is that of the composition of Bhâshyas, which lead to freedom from the control of the schools, and ushers in the stage of individual authorship. Thus,

xxvi INTRODUCTORY ESSAY

while the text-books produced by schools (e.q. the Śrauta-Dharma-Grihya-Sûtras) show the style of Sûtras, the works of individual authors (e.g. Yaska's Nirukta, Patanjali's Mahabhashya, etc.) bear a different character. They contain dogmatic statements, together with discussion supporting their own views, and the style passes from that of the Sûtras to the style of the Bhâshyas. Similarly, in Kautilya's work there are some parts characterized by the brevity and dogmatism of the Sûtras, while there are other parts in which the author indulges in certain breadth and minuteness of details after the manner of the Bhûshyas. Thus the Arthasâstra partakes of the character of both Sûtra and Bhâshya at the same time. and this is also admitted by the couplet added at the end of the book, viz.:-

हट्टा विप्रतिपत्तिं वक्तधा मास्त्रेषु नायकाराणां। स्वयनेव विय्युगुप्तयकार स्त्रच्य भाष्यश्च ॥

Hence the style of the work shows that it belongs to the class of literary works which are not the productions of schools but of individual authors.

We shall now discuss the evidence as to

INTRODUCTORY ESSAY xxvi

individual authorship furnished by passages in the book itself. These passages are given below:—

- सुखग्रस्णिविज्ञेयं तत्त्वार्थपदिनिश्चितम् ।
 कौटित्थेन क्वतं भारतं विमृतःग्रन्थविखरम् ॥ [I, i.]
- (2) सर्वभाष्माष्मनुत्रस्य प्रयोगमुपलस्य च। कौटित्सेन नरेन्द्रार्थे भासनस्य विधिःकतः॥ [II, x.]
- (3) एवं श्रास्त्रसिदं युक्तं एताभिस्तान्त्रयुक्तिभिः। श्वाप्ती पासने चोक्तं स्रोकस्थास्य परस्य च ॥ [XV, i.]
- (4) धर्मामधे च कामं च प्रवर्णयित पाति च। चधर्मानधैविदेशनिदं शास्त्रं निचन्ति च॥ [Ibid.]
- (5) येन शास्त्रं च शस्त्रं च नन्दराजगता च भू:। चमर्थेणो हृतान्या ग्रुतेन शास्त्रसिदं कतम्॥ [Ibid.]

The suggestion that all these passages might have been later additions to the text cannot stand, because, as pointed out by Prof. Jacobi, "if they are taken out, then the customary metrical conclusion will be wanting in the chapters concerned." They may therefore be taken to be integral parts of the text.

In the first passage the expression "स्वयस्य विश्रेयं," as pointed out by Prof. Jacobi, is a clear indication of individual authorship, for "so speaks the author of a text-book meant

xxviii INTRODUCTORY ESSAY

for self-instruction," for individual learners, and not for the school, for a Sûtra need not be सुवपस्पविश्वेष, because for its understanding the teacher has to look to the school. This inference is also in keeping with the meaning of the opening words of our text, viz. " प्रविष्या कामें पासने च यावन्यर्थभाकाणि पूर्व्याचाँदैः प्रसापितानि प्रायम-सानि चंद्रत्येकमिद्मर्थभाकं कत्म्।" Here there is a reference to individual authors, the earlier masters, and not to school traditions or schools; as must have been the case had the work of Kautilya been the product of a school.

The same contention is again supported by the second passage, which refers to practical administration and regulations [NIGHTGART] which are above scholastic wisdom. Here Kautilya claims special merit for his work, for these matters had not been sufficiently handled by previous masters. The personal note of the passage is also unmistakable, for would a mere "school compiler" have thus boasted of laying down regulations for guidance of emperors?

Of the next three passages, the first passage relates itself to the opening words of the text, the second promises the attainment of fam as

INTRODUCTORY ESSAY xxix

the end of the Arthasâstra, while the last verse indicates who the author is, not by mentioning his name, which had already appeared twice, but by enumerating his virtues or achievements with incomparably forcible brevity. This is not the language of vain self-glorification, but of one who speaks self-possessed from the height of human fame. But, as Prof. Jacobi well observes, in spite of the selfconsciousness undiluted by any sham modesty, one still perceives in the words of Chandra Gupta's Chancellor a courtly discretion which omits to mention the name of his master whom he had raised to the throne, for in that connexion it would have been supremely indecorous. This graceful self-restraint, this aristocratic reserve, is very significant and well worthy of the man and his position in life. is only a later author, untrammelled by such discretion or restraint, who can unreservedly mention the name of Emperor Chandra Gupta in connexion with the eulogy of Kautilya as Kâmandaka, for instance, has done in the passage quoted above.1 Lastly, the full significance of the phrase " चमर्षेण जद्रतं" has to be noted.

¹ See p. xiii above.

XXX INTRODUCTORY ESSAY

When applied to learning, it shows Kautilya's impatience of the narrowness and shallowness of his predecessors, which irritated him into activity, and is also an expression of the contempt of the Statesman for the Professor—of which Bismarck, for instance, made no concealment—a contempt which manifests itself throughout the book in the frequent references to the Âchâryyas and their doctrinairisms and the refutation of their teachings, and also in the necessity he felt for treatment of important topics omitted by previous masters but indispensable in a useful hand-book of Politics.

We have now considered the internal evidence of the book itself, which proves its genuineness as the production of Kauţilya. The suspicion which has gathered round the work is due to the fact that literary forgeries have been very common in India, and individual authorship very rare. It is, however, forgotten that these forgeries invariably connect themselves with divine names, with gods and rishis, or the gurus, e.g. books which passed under the names of Manu, Yâjñavalkya, Vyâsa and the like. But a literary adulteration in respect of a historical personality supported by

careful correspondence to the special features of the original (like the Letters of Phalaris, for example) is a refined imposture unheard of in India, and totally foreign to her soil. There is also another kind of literary practice in India which involves false naming of authors, and is frequently resorted to in cases where the author does not like to mention his own name but mentions instead that of his patron who brought about the composition of the work, e.g. the works going under the name of Bhoja, King of Dhârâ. Such a genesis, however, cannot apply to the work of Kautilya, wherein the author attributes to himself the merits of the work. It can, of course, hardly be denied that Kautilya must have had coworkers in many parts of his book, especially those which treat of technical details. Public officers of State in charge of the several departments of administration must have supplied to him materials which Kautilya has only edited; but this fact of itself does not vitiate the genuineness of the book as the production of Kautilya.

The universal reverence attaching to epochmaking masterpieces preserves them against

xxxii INTRODUCTORY ESSAY

the ravages of time and interpolators alike. They never get antiquated, but they become canonical. So has been preserved through centuries Yaska's Nirukta as well as Patanjali's Mahabhashya. This is also true of the Kautiliya Arthasastra, which has further preserved itself by the numbering of its vacu's and the sketching of its contents. Thus the suspicion against the genuineness of the work is unfounded, while the unanimous Indian tradition according to which the Arthasastra is the work of the famous Minister of Chandra Gupta is confirmed most decisively, as we have already seen, by a series of internal reasons furnished by the book itself.

In this connexion I should like to draw pointed attention to a few other passages in the text which, to my mind, contain indirect allusions and veiled references to the Emperor Chandra Gupta in respect of whom the Artha-sâstra has carefully avoided any direct reference for reasons already explained, and which will no doubt be found to supply additional and valuable links in the chain of reasoning by which we are supporting our thesis that the book is a genuine production of the Minister

INTRODUCTORY ESSAY xxxiii of Chandra Gupta. These passages are as follows:—

- (1) **अप्र**णीतो हि [द्राष्टः] मात्स्यन्यायमुद्भावयति । वजी- ४ यानवज्ञं हि प्रसत्ते द्राष्ट्रधराभावे । <u>तेन गुप्तः प्रभवति ।</u> [I, iv, 1.]
- (2) विद्याविनीतो राजा दि प्रजानां विनये रतः। चनन्यां प्रथिवीं भुङ्क्तो सर्व्यभूतदिते रतः। [I, v, 2.]
- (3) तिव्यव्यक्तित्वयेन्त्रिय्यातुरमोशिप राजा सद्यो विम्यक्षित् । [I, v, 3.]
- (4) देश: प्रथिवी ; तस्यां सिमवत्समुद्रान्तरमुदीचीनं योजनसम्मपरिमाणं चितियीक् चुक्रवर्तिचेत्रम् ।

[In ix, 135-6.]

The first of these passages easily lends itself to the interpretation that Kautilya seeks to justify his action in connexion with the usurpation of the throne by Chandra Gupta, whose strong and righteous administration [यथादेद प्रः and मृत्यान प्रयोगी द्यः] abolished the anarchy and misrule due to the profligacy and unpopularity of the previous Nanda king, who was unable to discharge the primary functions of government, viz. the protection of the weak against the strong [अपयोगी दि सात्यायमुद्धावयनि, etc.]; "नेन गुप्तः प्रभवनि" would thus mean "for this reason—the abolition of anarchy and

xxxiv INTRODUCTORY ESSAY

inauguration of order—does nn, i.e. Chandra Gupta,1 rise and flourish." This is in all probability the hidden meaning of the passage, though its obvious and superficial sense, drawn from the grammar and context, is different from that suggested. The other three passages have also, to my mind, a common veiled reference to the paramount sovereignty established over the whole of India from the Himalayas to the sea [स्थिनवत्-चमुद्रान्तरं, etc.], up to its boundaries in the four directions [चातुरमोर्डिप राजा], by Chandra Gupta, who reigns as the Lord Paramount, Chakravarttî, with none to dispute his rights or share the empire with him [चनन्या प्रियमी सुक्ति।]. Thus, though there are no direct allusions in the Arthasâstra to the sovereignty of Chandra Gupta which might connect it with his times, these indirect and veiled references are, in my opinion, a sufficient compensation for that supposed defect, and they well suit the work of a consummate politician like Chanakya, who knew very well what to express and what to suppress in writing about contemporary politics.

¹ I owe this suggestion to Mr. K. P. Jayaswal, M.A. (Oxon), Bar.-at-law. I am also deeply indebted to Dr. Brajendranath Seal, M.A., Ph.D., for his many invaluable criticisms and suggestions, and to Mr. Law for material assistance.

INTRODUCTORY ESSAY XXXV

And read between the lines, the Arthasâstra will be found to throw out sure and sufficient hints as to the age of its production.

Before I conclude, I should not pass over one other matter of importance in this connexion, viz. the striking correspondence between parts or passages of the Arthasâstra and the accounts of India traced to Megasthenes relating to the period of Chandra Gupta. Such correspondence of the Arthasâstra with a definitely dated document is no doubt of great help in fixing its age. A close study of both will show that the Book of Arthasâstra entitled was to gives a full view of Indian administration of which only a partial view can be obtained from the observations of Megasthenes [Frag. xxxiv]. This may be indicated as follows:—

1. "Of the great officers of State, some have charge of the market, others of the city, others of the soldiers." This corresponds to the चित्रपाता of the Arthasâstra, under whom were such officers as पणायन, प्रकाशन and the like, who looked after commercial matters, the नगरिक or city magistrate charged with the municipal administration and policing of the city, and

xxxvi INTRODUCTORY ESSAY

lastly such officers as नावध्यच, पत्यध्यच, सेनापित, etc., who were in charge of the military.

2. "Some superintend the rivers, measure the land . . . and inspect the sluices by which water is let out from the main canals into their branches." Kauţilya also mentions provisions for irrigation under the Superintendent of the Admiralty [नावध्यच] for inspection of rivers and watercourses. He also refers to canals and sluices, as in the passage "चेतु श्रोमुचन सोयमपारेषट्पणीद्मः," etc. [Bk. III, ch. x, 61], and mentions four modes of irrigation, viz. irrigation by hand चिमाविमी, by water carried on shoulders [कान्यप्राविभीन], by mechanical contrivances किंत-यन्त्रप्राविभेस], and by water from tanks, wells and rivers [नदीसरस्वाककूपोद्वाटम्]. In the following passage, "वातप्रविभागन्दिनिवन्धायतनतटाककेदाराराम-पखनापाना . . . " there is perhaps a reference to the raising of water from wells and tanks by bullocks, and also to devices worked by windpower, i.e. windmills.

As regards officers who "measure the land," a reference may be made to duties of officers called गोप, सानिक, etc., in the Arthasâstra, who were entrusted with the very same duties [Bk. II, xxxv, 54-55].

INTRODUCTORY ESSAY xxxvii

- 3. "The same persons have also charge of the huntsmen..." In the Arthasâstra hunters were placed under the immediate control of an officer called विशेषाध्य, the Superintendent of Pastures, whose duties are set forth in detail [Bk. II, xxiii, 52–58].
- 4. "They collect the taxes and superintend the occupations . ." In the Arthasâstra there is a detailed account of the arrangements for the collection of taxes or revenue. The chief responsible officer was the पमादमी, under whom were the heads of several departments who collected the revenue for which they were responsible and sent it on to the पमादमी [II, vi, 24].
- 5. "They construct roads . . ." This was done under the superintendence of the चमाद्यमा [ibid.].
- 6. "The members of the first body look after everything relating to the industrial arts." The Arthasâstra also [IV, i, 76] speaks of the State supervision of industries, so as to secure proper observance by artizans of rules governing the preparation or manufacture of products [IV, i, 76].
- 7. "The third body consists of those who inquire when and how births and deaths occur,

xxxviii INTRODUCTORY ESSAY

with the view not only of levying a tax, but also in order that births and deaths . . . may not escape the cognizance of Government." The Arthasâstra also gives details of census operations carried on by officers termed सानिक, गोप, etc. [see II, xxxiv, 54–55, and xxxvi, 56].

8. "The fourth class superintends trade and commerce. Its members have charge of weights and measures, and see that the products in their season are sold by public notice." The officer termed चंचायच in the Arthasâstra had also to detect false weights, measures and balances, and check the sale of adulterated goods and of inferior goods passed as superior [see chapter on विदेशकर्षणम]. He also regulated sales.

Similarly, Megasthenes' account of the organization of the War Office, with its six divisions, corresponds very well with what Kautilya says about the officers termed नावध्य, प्राथम, प्राथम, रवाध्यम, रवाध्यम,

INTRODUCTORY ESSAY xxxix

reference to elephants turning the scale of victory, which is to be compared with Kautilya's रिकाधानी विजयो राज्ञाम् [II, ii, 20]; his reference to "exercising the body by friction" is supported by the duties of the चंबाइक, as mentioned in the chapter on चातारचितवम् [Bk. I]; that about "the care of the king's person being entrusted to women" is supported by the chapters on आवार्णितकम् [Bk. I] and गणिकाध्यच [Bk. II]. His observation that "the king may not sleep during the day-time" is supported by the account of the king's daily duties in chapter राजप्रिपिः [Bk. I]; that about "the guard of armed women" by Chânakya's स्नीगर्णैः घन्निभः of chapter सात्मरचित्रकं [Bk. I]; that about "enclosures" for the king's hunting may be compared with मृगवनं विचारार्थ राजः कारयेन as referred to in the chapter. भूमिष्णिद्रविधानं [Bk. II]. The reference about the king's processions being very well guarded finds its parallel in what Kautilya says about them towards the end of the chapter on चात्रार्चित्रकम.1 Women attendants of the king, on chariots, as mentioned by Megasthenes, are also mentioned by Kautilya in his chapter on

¹ " निर्दी चे दिश्वाने च राजमार्गमुभयतः क्षतार्चं दिश्विभिर-पास्त्र सम्बद्धसम्बद्धाः स्थाने स

गणिकाऽध्यचः [Bk. II]. The reference about "houses being left unguarded" as contained in Megasthenes is perhaps connected with the custom mentioned in the Arthasâstra of leaving some parts of every house ["चित्रहनमाजयो"] open for all [III, viii, 61]. The mention by Megasthenes of the marriage dowry of "a yoke of oxen " corresponds to Kautilya's गोनियुनादाना-दार्गः [III, ii, 59]. The practice of the Admiralty "letting out ships on hire for transport of passengers and merchandise" is also referred to in the chapter on नावध्यच. Overseers as a class of officials as mentioned by Megasthenes correspond to the châras of the Arthasâstra about whom so much has been said in its several chapters. Megasthenes' reference to horses and elephants with persons specially "appointed to take care of them " is amply borne out by the chapters अवाधन and चरताधन as indicated above. The reference of Megasthenes to the Royal Road from east to west is corroborated by the accounts of roads in the Arthasastra [VII, xii, 116] in which roads leading to the Himalayas [इनवतः] and to the west [पूर्व्यपियमय विषक्षयः] are specifically mentioned. The precautions against fire as detailed in the Arthasâstra [II,

xxxvi, 56, and IV, ii, 78], where ten different remedies are laid down [इसम्बोरंगर] for universal use of householders, as also the municipal regulations by virtue of which, in all the principal roads of a city and in front of royal buildings, vessels filled with water were kept; which forbade building straw houses in the city, and confined those who worked with fire, e.g. blacksmiths, to isolated parts of the city: all these have really a reference to the wooden architecture prevalent in the period as indicated in the chapter on द्वारिक्शानं [Bk. II] and also mentioned by Megasthenes [Frag. xxvi].

Lastly, the testimony of Megasthenes to the high degree of development which material civilization attained in India is abundantly supported by the detailed information furnished by the Arthasâstra on the subject. It would take too much space, and is hardly necessary, to prove by quotations the truth of Megasthenes' remarks [Frag. i] that the Indians are "well skilled in the arts," and "while the soil bears on its surface all kinds of fruits which are known to cultivation, it has also underground numerous veins of all sorts of

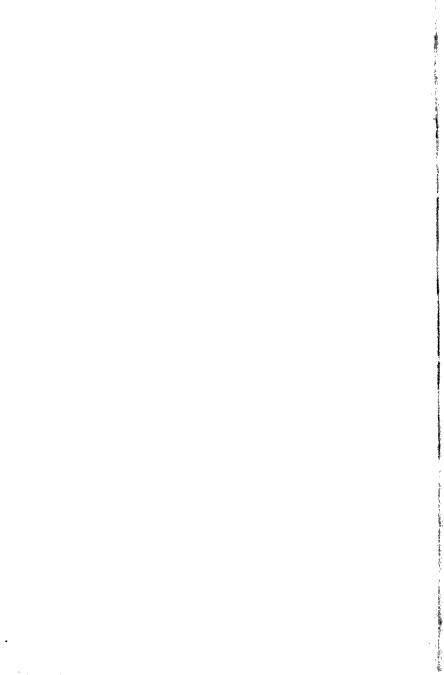
xliv INTRODUCTORY ESSAY

gulations appropriate to a mercantile civilization, which are not parts of any system of polity, while both Aristotle's Politics and Plato's Republic go to the other extreme of treating only of the theory of the State and Constitution. In the Arthasâstra we find a combination of theory and practice, principles of government, as well as administrative details and regulations, treated with a touch of refreshing realism which is born only of a living experience of actual problems and contact with facts. The system of polity as revealed in the Arthasâstra is complete in all aspects and details, and exhibits those features which are characteristic of India. Agriculture and commerce, arts and crafts for which India is ever noted, receive their due treatment and emphasis in the book; forests and mines, irrigation and famine, land revenue, census, central and municipal government, cattle and livestock, are the eternal topics of Indian administration, conditioned, as every government is, by its natural and historical environment. And when we find that all these familiar problems have been treated in the Arthasâstraproblems which are still exercising the British

INTRODUCTORY ESSAY xlv

Government of India at the present day—we cannot but discover the operation of an evolutionary process which is ultimately governing the development of Indian administration through Hindu, Mahomedan and modern times.

RADHAKUMUD MOOKERJI.



CONTENTS.

HAPTER I.	Preliminary, Mining, Irrigation and	Meteo	r.	PAGE
	ology	*.		1
II.	The Department of Live Stock: Ca	ttle ar	ıd	
	Pasture	•		16
III.	The Department of Live Stock:	Gam	ө,	
	Forests and Horses	•	•	34
IV.	The Department of Live Stock: Eleg	phants	3.	53
ν.	Means of Communication .			68
VI.	Minor Works of Public Utility .			88
VII.	The Census			106
VIII.	The Courts of Justice	٠	•	117
IX.	Legal Procedure			122
X.	The Law of Contract:			
	(1) General	•		136
	(2) Sale and Pre-emption .			155
	(3) Loans			170
	(4) Deposit, etc.			179
	Index		_	197



STUDIES IN ANCIENT HINDU POLITY.

CHAPTER I.

Preliminary. Mining. Irrigation.
Meteorology.

§ 1: Preliminary.—The Arthasastra of Kautilya, which has been recently edited and published by Mr. R. Shama Sastri, possesses a great interest and importance not only to students of Sanskrit literature, but also to students of Indian history. It throws a flood of light on the material, social and political condition of the ancient Hindus during the third and fourth centuries before the Christian era. It is in fact a unique record of the secular aspects or developments of Indian civilization in that brilliant period of Indian history—the Age of Chandra Gupta. For information regarding this period or the sources of its history,

we had hitherto unfortunately to depend mainly upon the meagre accounts left by Greek writers whose interest in India was first roused by the invasion of Alexander. This work of Kauṭilya, however, removes to a great extent our want in this direction by opening up a mine of information which is as full as it is reliable.

I therefore propose to utilize this work, in a number of chapters, as a source of information regarding the aforesaid period.

One of the most striking features of Chandra Gupta's government revealed by the Arthasastra is that it achieved many triumphs in peace which were no less than those of war—
in fact, Chandra Gupta was as well known for the numerical strength and the efficiency of his army and the organization of his war office as for those regulations and institutions which ensure the material welfare of a country. In the present chapter I shall refer to some of the most prominent works and institutions of public utility of his time, which are definitely indicated by passages in the Arthasastra.

There can be little doubt that the department of public works in the government of Chandra Gupta was fairly well organized, with

its scope and functions clearly defined. The area of its activity was quite extensive, and included among other things the working of mines, the opening of irrigation works, the establishment of factories; the maintenance of preserves and grazing grounds, of highways of commerce, waterways, land-routes, and other facilities for communication: the establishment of markets and stores; the construction of embankments, dams and bridges; the planting of fruit and flower trees, of medicinal plants and herbs (i.e. the establishment of Ayurvedic and pharmaceutical gardens); and lastly, the State protection of the disabled, the helplessand the infirm, and also of the lower animals, thus anticipating some of the tendencies of modern legislation. I quote below some of the passages which contain references to these works and institutions:-

- (i) चाकरकर्मामाइयच्चित्रनवजनिषक्पथप्रचारान् वारि-सास्पथपण्यपन्ननानि च निवेशयेत्। —Bk. II, जनपदनिवेशः, p. 47.
 - (ii) चेतुवन्ध्योरणाचार्योदकात् मचोदकः श्रेयान्। —Bk. VII, कर्मामन्यः, p. 297.
 - (iii) एवं द्रवं द्विपवनं से तुबन्धसथाकरान्
 रचेत् पूर्वेद्यतान् राजा नवांसामिप्रवर्णयेत्।
 —Bk. II, जनपदनिवेशः, p. 49.

- (iv) जनरपिसमागं पण्यभेषव्यात्वः।
 —Bk. II, दुर्गनिवेगः, p. 55.
- (v) सहोदकमान्तार्यादकम् वा चेतुं बन्धयेत्। स्वन्येषां वा विश्वतां भूतिमार्गष्टचोपकरणानुग्रन्धं कुर्यात्। —Bk. II, जनपदिनिवेगः, p. 47.
- (vi) प्रथम्भसीयं महामात्रीयं, विभन्नस्नीपुर्वस्थानमयसारतः सुगुप्तक्यां बन्धनागारं कार्यत्।
 —Bk. II, सिन्नधार चेयकर्म, p. 58.
- (vii) भिष्मीषञ्चागारान् आस्वाद्विद्धाद्वभिषञं ग्राह्मीला पाचक-पोषकाभ्यामात्मना च प्रतिस्थाद्य राज्ञे प्रयञ्चेत्। —Bk. I, आत्मरिकतकम्, p. 44.
- (viii) गत्मभेषच्योग्रीर चीरवेर पिष्डासुकादीनां यद्यासं भूमिषु च स्थास्थांच चनूष्याचीषधीस्थापयेत्।
 —Bk. II, सीताऽभ्यचः, p. 117.
 - (ix) से तुं वनं क्रजं विणकपथं चावेचेत । —Bk. II, समाहतृं समुद्यप्रस्थापनम्, p. 59.
- (x) (a) वालष्टद्व्याधितव्यसन्यनाथांच राजाविभृयात् (b) स्नेन-व्यास-विषयाचैः व्याधिभिस् पद्मव्रज्ञान् (रचेत्)। —Bk. II, जनपद्निवेशः, pp. 47, 48.
 - (xi) वयः प्राचीना राजसार्भाक्षय उदीचीनाः। चतुर्देखानारा रथा राजसार्भ-दोषसुख-स्थानीय-राष्ट्र-विनीतपथाः।

स्योनीय-वुष्यम्मान-मान-पथाष्ट-द्ष्यः । चतुर्ष्यस्तित्वनपथः । द्विर्ष्योच्सिचेनपथः । पश्चारक्यो र्थपथ्यस्तारः पश्चपथः । दो चुक्रपश्चननुष्यथः । —Bk. II, दुर्गनिवेशः, pp. 54, 55. § 2: Mining.—Let us first turn to the working of mines. The only two passages in Megasthenes that are worthy of note in this connexion are:—

"And while the soil bears on its surface all kinds of fruits which are known to cultivation, it has also underground numerous veins of all sorts of metals, for it contains much gold and silver, and copper and iron in no small quantity, and even tin and other metals which are employed in making articles of use and ornament as well as the implements and account of war."—Book I, Fragment i.

The second passage is:—

"The robes are worked in gold and ornamented with precious stones, and they wear also flowered garments made of the finest muslin."—Book II, Fragment xxvii.

These passages show, no doubt, that there were extensive mining operations in those days, but do not satisfy our curiosity as to their details. The Arthasâstra, however, does this. According to it, there were two classes of mines, viz. (i) ocean mines and (ii) land mines, and expert superintendents were appointed in charge of each class. The duty of the superintendent of ocean mines was to look after the collection of diamonds and other precious stones, pearls, corals, conch-shells and salt. The regulation of the trade in these articles was also one of his duties. It may be

noted in passing that ocean mining unquestionably indicates great progress in the art of navigation and shipbuilding, which will be dealt with hereafter.

A scientific expert was appointed to the post of superintendent of land mines. In the first place, he had to perform the difficult work of prospecting and discovering new mines on plains and mountain slopes. He had to examine and infer from slags, ashes and other such indications whether a mine had been exhausted or not. This department was manned by several other experts, as also by mining labourers. It was also equipped with the necessary scientific apparata.

of prospecting by his knowledge of the signs and properties of the mineral ores. He had to pay particular attention to the depth of colour, weight, smell, taste, oiliness, adhesiveness, power of amalgamating with particular metals, and several other mechanical and chemical properties of the ores, in order to ascertain the nature and richness of a mine. We find in the Arthaśâstra the properties of several metals classified, and the large number and variety of

them necessarily lead one to the conclusion that mining reached a stage far above the rudimentary, and that the persons who devoted their attention to it possessed no small power of discrimination. As an illustration 1 I quote below the passage which enumerates the signs of the different kinds of silver ores. It says that the silver ores are those which have the colours of मझ, कपूर, स्फटिक, नवनीत, कपोत, पारावत, विमस्तक, मयूरपीवा; of सस्तक, गोमेदक, गुड़ मत्स्यण्डिका; of कोविदार, पद्म, पाटली, कलाय, चौमपुष, चातसीपुष्प; which are found in combination with सीस. अञ्चन. are विच (smelling of raw meat), भिन्न, खेनाभ, कच्ण, क्षणाभ, श्वेत and लेखाबिन्दुचिन; do not split, and emit much foam and smoke. Similarly, we find mentioned the properties of the ores of gold, float-gold, bitumen, copper,2 lead,3 tin,

ग्रामु - कपूर - स्प्रिक - नवनीत - कपोत - पारावत - विमल्ख - मयूरपीवावणाः । सस्यक-गोमेदक - गुड़ - मत्स्राण्डिकावणाः । कोवि - द्रार पद्मपाटलीक लाय चौमातसी पुष्पवणाः । ससीसाः साझानाः विचा भिद्याः सेतामाः ख्रामाः ख्रामाः सेताः सर्वे वा लेखाबिन्द - चिचा मृद्वो भागमाना न स्पुटन्ति बङ्फोण घूमास रूप्यघात वः । — Bk. II, चाकरकर्मान्तप्रवर्तनम्, p. 82.

² Ores of copper— भारिकस्विग्धो मृदुः प्रसर्धातुर्भूसि-भागो वा पिङ्गलो हरित: पाटलो लोहितो वा तामधातुः। Ibid., p. 83.

³ Ores of lead— काकसेचक: कपोतरोचनावर्ण: श्वेतराजिनको वा विख्यांसभात:। Ibid.

iron, etc. It is apparent from this that the classification is an elaborate one, and the industry in Chandra Gupta's time reached an advanced stage.

When the superintendent discovered a new mine, he intimated it to Government, stating at the same time the nature of its contents. The Government had to decide whether it would work the mine directly or lease it out to private persons. It was only in the case of those mines that required a large outlay to work them that Government leased them out.

The purification of the ores during the actual exploitation of the mines is an interesting study. The metals were purified by treating them with ingredients most of which were organic. The passage¹ quoted below enumerates these ingredients: नीच्य, urine, alkalies, राज्यस्त, यह, पोस्, cow's bile, urine and dung of buffalo, etc. Again, metals were made permanently or temporarily malleable

by chemically treating them with several ingredients, e.g. ashes of यम, साम, निम्म, honey, sheep's milk, clarified butter, powder of cow's teeth and horn. The passage bearing on this point asserts that even if a metal splits into a hundred thousand parts it can be rendered malleable by the prescribed methods. These methods, however, appear to us to be novel, and are quite different from what a metallurgist of the present day would use. But nevertheless they were of service in their day.

After the metals had been purified, the superintendents who looked after the manufacture of articles from the metals took charge of them. There were several such superintendents, e.g. a superintendent of gold (स्वर्णाध्यक्षः) for manufacturing ornaments from gold; a superintendent of the inferior metals (को साध्यकः), viz. copper, lead, tin, bell-metal, नास and खोत्र, to manufacture commodities from them; a superintendent of the armoury (बायुवाध्यकः), one of whose duties was to look after the

ेयवसापति खपलाश्यो जुचारै: गोचीरराज चीरैर्या वदलीय-चकन्दप्रतीवायो सार्वेयकर:। सधुसधुक्स जापय:सतें जं घृतगुड़-कि खयुतं सकन्दड़ीकं—यद्पि श्रतसच्चघा विभिन्नं भवति सृदु विभिरेव तिविभेके:। गोदनाष्ट्रकप्रतीवायो मृदुक्तभव:।

__Ibid., pp. 82, 83.

manufacture of metal weapons; a superintendent of the mint (जनपाधनः) for minting coins from gold, silver, copper, etc.; a superintendent of the treasury (कोमाधनः), one of whose principal duties was to look after the formation of ornaments of precious stones such as necklaces and bracelets. Commerce in the manufactured metal articles was in the hands of Government. There was a separate superintendent to look after and regulate commerce in salt (जनपाधनः).

There were regulations for the departments of the superintendents; but leaving them for the present, let us turn to the different kinds of rates that were levied from mines. These were, as the passage quoted below shows—
(1) मूख, (2) विभाग, (3) बाली, (4) परिव, (5) खत्यग, (6) ग्रस्क, (7) वैधरण, (8) दण, (9) रूप and (10) रूपिक.

» Before leaving the subject of mines, it should be noted that in Bk. IV, वाक्यकभीन्योगः, there is a passage which lays down the punishment for a Brâhman who has committed a heinous offence, viz., that though he must not be tortured in any case, his property may be

¹ रवं मूखं विभागं च याजीं परिषमत्ययम् ग्राक्तं वैधरणं दण्डं रूपं रूपिकमेव च। Ibid., p. 85.

confiscated or he may be condemned to the mines. This resembles the punishment inflicted in Rome on criminals for an offence of the grosser sort.

§ 3: Irrigation.—We now turn to the next point, viz. irrigation. That there was an elaborate system of irrigation in the time of Chandra Gupta is already known to us through Megasthenes:

"The greater part of the soil is under irrigation, and consequently bears two crops in the course of a year."—Bk. I, Fragment i.

And again,

"Some superintend the rivers, measure the land as is done in Egypt, and inspect the sluices by which water is let out from the main canals into other branches, so that everyone may have an equal supply of it."—Bk. III, Fragment xxxiv.

These statements are borne out by the Arthasastra, and, moreover, certain details are added which we do not find in Megasthenes In the passages

चसप्रावित्तमस्त्भागं पच्चमं द्युः । क्षात्मप्रावित्तमं चतुर्थम् । चोतयन्त्रप्रावित्तमं च तृतीयम् । चतुर्थं नदीसर्साटाककूपोद्वाटम् । —Bk. II, सीताऽधचः, p. 117.

¹ (ब्राह्मणं पापकर्माणम्) कुर्याद्विविषयं राजा वासयेदाकरेषु वा । Bk. IV, p. 220.

we see that water-rates (जदकभाग) varied according to the modes of irrigation, which were four in number, viz. irrigation by hand (चन्नावर्तिम), irrigation by water carried on shoulders (काअप्रावर्षिम), irrigation by some mechanical contrivance (कोतयन्त्रप्रावर्तिम), and irrigation by water raised from tanks and rivers (नदीचरखटाकक्रपोद्वाटम). The rates were one-fifth. one-fourth, one-third and one-fourth of the produce respectively. Again, in Bk. III, वास्तिकायः, p. 170, which speaks of remission of taxes in the case of repair of old tanks and construction of new ones, and also in the case of improvement and extension of waterworks, we find it laid down-बातप्रविधिमनन्दिन बन्धायतन-तटाककेदारारामषण्डवापानां सस्यपर्णभागोत्तरिकसन्येभ्यो वा घर्यो-पकारं इद्यः। which shows) that there were not only means of raising water by bullocks, but also contrivances worked by wind power, i.e. wind-In the next passage—

> से तुभ्यो सुचतस्तीयनपारे षठ्पणी दमः पारे वा तीयनन्येषां प्रमादेनीपराश्वतः।

a fine of six panas is laid down for letting out the water of canals otherwise than through the sluice-gate (भगरे) and for hindering the flow of water through the same (भारे). This passage

confirms the existence of sluice-gates referred to by Megasthenes.

In the above couplet the word चेतुमाः cannot be taken as the technical term for canals; for the term is a general one and has been used in several senses in the Arthasastra, e.g. bridges, watercourses, embankments.¹ But in Book II,² चीनाःभाचः, we meet with the word कृष्णावापानां,³ which means countries where water is drawn from कृष्णा. This term कृष्णा means an artificial watercourse, and was perhaps the technical name for canals.

Special care was taken for keeping tanks and other waterworks in good repair, and the minimum fine in the case of those who were prone to neglecting them, viz. the owners of rent-free lands, was fixed at double the loss caused by their remissness.⁴ There were other regulations, e.g. one prohibiting men from emptying a tank of its water and from allowing the water of a higher tank to flow

¹ Bk. III, p. 166; Bk. II, pp. 47 and 60; Bk. VII, pp. 297 and 305.

² Also Bk. II, pp. 54 and 122.

³ (खिसितम् वर्षप्रमाणम्) हैसन्यानां च कुल्यावापानां च। p. 116.

^{&#}x27; अप्रतीकारे चीनद्विगुणी द्ष्डः, p. 170.

into a lower one unless the latter had been useless for three consecutive years.

- § 4: Meteorology.—I cannot conclude this account of irrigation without pointing out that in those remote days the people had a workable knowledge of the science of meteorology. They had some sort of rain-gauge which enabled them to measure the rainfall in a particular tract of country in a given time.
 - (i) घोड्मदोणं जाज्ञज्ञानां वर्षप्रमाणम् सध्यर्धमानूपानां देशवा-पानामर्थवयोदमामाकानां चयोर्विम्सत्तरवन्तीनामसितमपरान्तानां हैमन्यानां च कुल्यावापानां च काज्यतः।
 - (ii) वर्षविभागः पूर्व्यपिश्वससासयोः, दीविभागीसध्यसयोः सुप्रसा- क्षम् ।
 - (iii) तस्रोपजिञ्जवृष्टस्यतेष्स्यानगमनगर्भाषानेभ्यः ग्रुक्रोद्-यासमयचारेभ्यः स्ट्र्यस्य प्रकृतिवैक्षताच । स्ट्र्याद्वीजिसिहः। ष्टच्यातेष्सस्यानां सम्बक्तिता । ग्रुक्राद्वृष्टिरिति ।
 - (iv) नयस्मप्तान्तिकानेषा स्थातिः कण्योकराः पिटरातपनेषानां एषा वृष्टिस्तुनान्ति। "

The lines quoted above show that they arrived

[ा] को छागारे वर्षमानमरतिसुखं कुष्डं स्थापयेत्—Bk. II, स्त्र-भारचेयकर्म, p. 58. A vessel with its mouth 1 aratni wide was used as a rain-gauge, and one such vessel was put before the store-house. (1 aratni=24 angulas=about 2 ft.; an angula= the middle joint of the middle finger of a middle-sized man)— मध्यमस्य प्रवस्य मध्यमाया समुख्या मध्यमकर्षाः मुख्यम् ।—Bk. II, देशकाजमानम्, p. 106.

² Vide सीतात्र्यचः, pp. 115, 116.

at definite conclusions as to the quantity of rainfall in particular places. In Jangala-(जङ्ख) countries the rainfall is 16 dronas (a drona being a cubic measure); in the country of the Asmakas (अमन), 13 dronas; in Avantī (भवनी), 23 dronas, and so on [passage (i)]. Besides, the rainfall is considered to be even, if it occurs during the commencing and closing months, i.e. Srâvana and Kârtika, and twothirds in the middle months, i.e. Bhâdra and Asvin [passage (ii)]. The third passage speaks of the forecast of rainfall that can be made by observing the position, motion, etc., of the sun and Venus and Jupiter; the germination of seeds can be inferred from them also. The last passage indicates an elaborate classification of the clouds according to their characteristics. It speaks of three kinds of such clouds as poured in heavy showers for seven days together, eighty kinds of clouds that rained minute drops, and sixty kinds that appeared with sunshine. All this shows that the science of meteorology was brought to such a developed stage that the people could depend on its conclusions and guide their actions in their day-today work of sowing seeds and reaping harvest.

CHAPTER II.

THE DEPARTMENT OF LIVE STOCK: CATTLE AND PASTURE.

WE have in the previous chapter dealt with some of the public works of utility as described in the Arthasastra. We have seen how a special department existed for the development of mining, the impetus to the discovery of mines being given in the shape of a share in the mines discovered; and how the department was placed under the charge of experts conversant with all the processes of that difficult industry. We have also seen how the promotion of irrigation was looked upon as one of the duties of the State and was not left to

¹ If a private person discovered a mine, he got one-sixth of it as his share; if he happened to be a Government servant, one-twelfth: खनिर्लिणिनिवेदनेषु पष्ठमंग्रंनिवेशा स्मेस । हाद-ग्रंथं भृतकः। श्रस्यच्याद्धं राजगासी निधि:। उनेपष्ठमंगं द्यात्—Bk. IV, काचकरचण्म, p. 202.

the meagre resources of private enterprise. In connexion with irrigation, we have also seen how the necessity of meteorological observations was recognized, and even simple contrivances were in use for purposes of rain-gauge (वर्षमानम् कुष्डम्).

We shall now turn to other institutions of public utility maintained by the State. It is a noteworthy fact that the importance of live stock to India, pre-eminently the country of agriculture, was then fully realized, and special care was taken by the Government for their healthy growth and improvement. Even at the present day Indian agriculture has been held to be suffering much from want of proper grazing grounds and commons for cattle and of a proper supply of fodder; but in Chandra Gupta's time we find a special department to provide for pastures and grazing grounds for a proper supply of fodder and for the welfare of live stock in general. There were no less

¹ Compare in this connexion the following extracts from the article on agriculture in the *Imperial Gazetteer* (new edition): "In the deltaic areas and in the rice-tracts generally, the cattle are miserably weak. Grazing lands are here limited or totally wanting... General improvement is hopeless without assured fodder supplies..."—Vol. iii, pp. 77, 78.

than six chief officers for running this department: (i) मोत्थान, the superintendent of cows; (ii) विनीताथन, the superintendent of pastures and grazing grounds; (iii) स्नाधन, the game-keeper; (iv) बख्यमन, the superintendent of elephants; (v) कुषाधन, the superintendent of forests and forest produce; and (vi) चन्नाधन, the superintendent of horses.

Let us first turn to the first of these officers. It must not be supposed that the superintendent of cows, as the name indicates, had to take care of cows alone. In fact, he had to do with other animals also, such as buffaloes, sheep, goats, asses, camels, pigs, mules and dogs. One of his chief duties was to appoint milkers (दोचन), churners (मयक) and hunters (इयक) for fixed wages, to each of whom was assigned a herd of 100 heads. He had also to see that the bulls were tamed and trained to the yoke by the cowherds (गोपालक), and that strings were put through their noses, as also

[ा] गोपालक-पिष्डारक (buffalo-herdsmen)—दोचक-मन्यक सुम्भ-काः स्तं भ्रतं भेनूनां चिरण्यमृताः पालयेयुः। चीरघृतमृता चि वसान् पचन्युरिति वेतनोपगाचिकम्—Bk. II, गोध्याचः, p. 128.

² दोच्का जमित क्रामत सत्पास्त चार्चा नं दण्डः। एतेन नस्प्रदम्य-युगविन्धनवर्षनका स्वाखाताः—Ibid., p. 180.

to settle terms with herdsmen for the tending of animals under their charge. These terms were of four kinds:—

- (i) Appointing, on fixed wages, cowherds and buffalo-herdsmen, each of whom was placed in charge of 100 head. This arrangement was called वेतनप्रतिपाष्टिक.
- (ii) Appointing, on payment of a certain fee, cowherds, each of whom was placed in charge of a herd of 100 head, containing in equal numbers the following five classes of cattle, viz. aged cows (चरद्रा), milch cows (घर्), pregnant cows (गरियो), young cows (परीयो), and female calves (वस्तरो). The fee was 8 vârakas (i.e. $3\frac{2}{20}$ seers) of ghee, as well as the tail and branded 2 skin of dead cows. This system was called करप्रतिकर.
- (iii) Appointing, on the principle of profitsharing, cowherds whose herd comprised cattle

¹ Vide footnote (1) on previous page.

² There were special brands to distinguish private cattle from the royal. Tampering with the royal brands was punishable: परपग्रनां राजाक्षेत्र परिवर्गीयता रूपस्य पूर्वे साइसद्खं द्यात॥ (गोऽधचः)।

[ै] जरद्गु-धेनु-गर्भिणी-पष्टौची-वत्सतरीणां समविभागं रूप-श्तमेक: पाखरोत्। घृतस्थाष्टौ वारकान् पणिकं पुष्कं श्रद्धाचर्म वार्षिकं दद्यादिति करप्रतिकरः।—Ibid.

with diseased limbs (याधितान्यकानि), those which could not be milked or were difficult to milk (यरोच्ड्रोंचा:), and those that killed their calves (प्राप्त). Each herd was composed of the above four classes in equal numbers. As the tending of these herds was difficult, it was rewarded by a share in the out-turn from the herds. This arrangement was known as भगोत्वयक.

(iv) Engagement of the services of the superintendent by private parties for tending their herds in the event of their own inability to do so, either from danger of thieves, or from apprehended danger from forests. In these cases, the fee charged by the Government was a tenth of the produce. This system was termed भागान्त्रविषक.

One other particular regarding these herds should be noted in passing. The total number of each herd was fixed at 100, but the number of male animals in each herd varied with its

¹ याधितान्यक्षान्यदोचोदुर्दोचापुत्रक्षीमां च समिवभागं रूप-भ्रतम् पाखयन्यक्कातिकं भागं द्युरिति भगोत्स्टकम्।

^{&#}x27;परचक्राटवी भयादनुप्रविष्टामां पन्नमां पासन्धर्मीण दश-भागं द्युरिति भागानुप्रविष्टकम् !— Ibid.

composition. A herd of 100 head of asses and mules was to contain five male animals; that of goats and sheep, ten; while that of cows, buffaloes or camels, four.¹

There was a register of cattle, kept by the superintendent. In it were noted the following varieties of cattle, viz.—male calves (वत्साः), steer (वसनराः), tamable draught oxen (दस्याविश्वनो ष्याः), bulls for impregnating the herd (अचयः पुरुवा:), oxen for pulling carts drawn by pairs (युगवाचनम्बरवद्याः रूपभाः), cattle of which the flesh was food (स्ताः), buffaloes (मन्त्रिषाः), draught buffaloes (प्रष्ठस्कन्थवान्दिनः मन्दिषाः), female calves (वित्सकाः), heifers (वसनरी), young cows (पष्ठीही), pregnant cows (गर्भिणी), milch cows (धेनु), cows and buffaloes that had not yet calved (अप्रजाताः) or were barren (वन्धाः), male and female calves only a month or two old or still younger (मार्चिद्रभाषजा-तासासामुपना वत्सा वित्तकास).2 These, together with the cattle that strayed away and were not claimed for a month or two by the owner who lost them (मामदिमास पय्युषिताः), were branded, and the superintendent registered each of them

^{&#}x27;पञ्चर्षभं खराश्वानामजावीनां दशर्षमम् श्रक्षं गोमचिषोष्ट्राणां यूथं क्वयो चतुर्वृषम्।—Ibid.

² Vide "गोश्यच:"।

according to its class as mentioned above, and also according to the brand, natural signs, colour, and distance between the horns. This duty of the superintendent was termed वजपर्योगम्.¹

The superintendent had also to take note of those animals that were missing (नव) and also of those that were lost for good (विनव). Those that were stolen, had got mixed up in the herds of others, or had disappeared in other ways, were called नव. Animals were regarded as विनव when they met with either natural or violent death. Thus, it was recorded whether they died of poison, disease, old age, from being buried in mire or drowned in water; whether killed by tree or stone falling upon them, struck by lightning (देशान), or fallen a prey to tiger, snake, crocodile or forest fire.²

The State fixed the scale and standard of diet normally necessary to keep up the health, vigour and working capacity of all live stock.

[ं] चक्कं चिक्नं वर्षे भूटकानारं च जचणमेवमुपजानिवन्धधेदिति व्यापयोगम् ।—Ibid.

² चोरक्तसन्ययूथप्रविष्टसवलीमं वा मष्टम् पङ्ग-विषस-श्वाधि-जरा तोषाधारावसद्रं ष्टचत्रकाष्ठभिज्ञानिकतमीशानयान्तर्भप-पाद दावाधिविषद्रं विमष्ठं प्रसादाद्भ्याभवेय:—Ibid.

The following table gives particulars about the dietary of bulls that were provided with nose-strings and equalled horses in speed and carrying loads.1

For the aforesaid bulls:									
Quan	titi	ies.							Approximate modern equivalents,
hhira of meadow-grass (1½ seer.
11 bhâra of straw (ट्रप)									3 seers.
1 tula of oil-cakes, with cheese if necessary to make									
them more palatable			•					•	2 ² chataks.
10 adhakas of bran (क ज क	रख).							12 chataks.
5 palas of salt (मुखसवण)		٠							23 sikis
							(ab	ou	t ½ kancha).
1 prastha of drink (पাৰ)	•								1 1 kancha.
1 tula of मांस, i.e. fleshy p	ari	t or	pul	рο	f fr	uits			23 chataks.
1 drôṇa of barley (यव) or	of	cool	ked	bes	ın (मा	ष)		44 chataks.
1 âdhaka of curd (दिध)					. `				1; chatak.
1 drôna of milk (चीर).									44 chataks.
1 ûdhaka of liquor (द्वर्1)									2½ kanchas.
1 prastha of oil or ghee (ह)							1½ kancha.
10 palas of molasses (স্বাব									$4\frac{4}{5}$ sikis.
1 pala of ginger (स्किन्र) may be substituted for									
drink (पान)	•	•	•	•	•	•	•	٠	½ or about ½ siki.
1 kudumba of oil for rubbin	og:	over	th	e no	ose	(নী	स बु		
डुम्बोनस्यं) · · ·	•		•	•	•	•	•	•	1½ siki.3
1	6	-	-c	<u>.</u>				_\$_	
ेबलीवदीनां नसायभः	411	त्व	11.4	4 (ય	94	ષ્યા	q •	nt, etc.—
गोऽध्यचः।	_								

² किलाटो—(cheese)—घाणपिण्याक—(oil-cakes)—क्केट्रार्थ-Ibid.

³ The above measurements have been made on the basis of गुञ्ज (gunja) seed or two भाष's (mashas) being taken as the unit of calculation, equivalent to 15 grains (Troy). See the chapter

The same quantities of the above commodities less by one-quarter formed the food of mules, cows and asses; and twice the above quantities were given to buffaloes and camels. The quantities fixed above, however, could be varied to suit the needs of particular occasions. For example, the rations allowed to oxen kept to work were proportioned to the length of time they were worked, and in the case of cows that were milked, an increase was made in the amount of food. The main items of food were of course water and straw, which were always given in plenty to all cattle, while whey (प्राचित्र) was given to pigs and dogs.

There were various rules regarding the milking of cattle and the standard of dairy produce of all kinds. The milkers had to milk

entitled तुसामन्पीतवम् (Bk. II), which describes the weights and measures then in vogue. The measurements given therein coincide in the main with those arrived at independently from other Sanskrit works by Monier Williams in his famous Dictionary.

^{&#}x27;पादोनसञ्चतर्गोखराणां, द्विगुणं सचिषोष्ट्राणां कर्मकरवाणी-वर्दानां, पायनाणानां च धेनुनां, कर्मकास्तरः फस्तस्य विधा-दानम्।

^{&#}x27; सर्वेषां स्पोदकप्रकाम्यमिति गोमण्डलं याखातम ।

⁸ जदीसत् सवराहिस्यो दयुः।

the cattle once or twice a day according to the seasons. Thus, in the rainy and autumnal seasons and in the first part of winter (रेमन), they had to milk both in the morning and in the evening, while in the other seasons, only once in the day; and if anyone violated this rule and milked a second time, he was visited with the cruel penalty of having his thumb cut off. They had to milk at stated hours and make good any loss caused by neglect of this rule.¹

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The churners had generally to conform to certain fixed proportions in regard to the preparations of milk. Thus, it was fixed that 1 prastha, i.e. 1½ kancha, of ghee would be produced from 1 drona, i.e. 4½ chataks, of cow's milk, one-fifth as much more from the same quantity of buffalo milk, and one-half as much more from the same quantity of milk of a goat or sheep. Where any variation of the above proportions occurred, as it must occur through a change in the quantity and quality of the food given to cattle, the exact quantity of ghee was ascertained by actual churning,

[े]वर्षा अरद्वेमनानुभयतः कालं द्युः। अशिश्रवसन्तरीयाने क-कालम्। द्वितीयकालदोग्धुरकुष्टच्दो द्ष्यः।—दोच्चकालमित-क्रामतस्तर्फलचानं द्ष्यः।—(गोऽध्यचः)।

and was fixed as the modified standard to which churners had to conform.¹

Besides the rules relating to the yield of living cattle, there were also rules regarding that of the dead. In case of the natural death of a cow or a buffalo, the herdsmen had to surrender the skin with the branded mark. The same rule applied to the cases of goat, sheep, ass, camel, etc. The herdsmen had also to give up the fat, bile, marrow, teeth, hoofs, horns and bones of the dead animals.²

Again, animals like goats and sheep were shorn every six months, and their wool (জৰ্মা) was made over to the superintendent.3

MEDICAL TREATMENT OF CATTLE.

It was also the duty of herdsmen to apply medicines to diseased animals. The due dis-

¹ चीरक्रोणे गवां घृतप्रसः। पश्चभागाधिको मस्तिपाणां। द्विभा-गाधिकोऽकावीनां। सन्यो वा सर्वेषां प्रसाणं सूसिट्टणोदकविशे-षाद्धि चीरघृतष्टद्धिभैवति।---(गोऽध्यचः)।

² कारणमृतस्याद्गचर्म गोमिडिषस्य कर्णज्ञणमञाविकामाम् पुच्छमद्गचर्म चात्रखरोष्ट्राणां बाजचर्म-विका-पित्त-स्नायुद्मस्रुर-ग्रामासीनि चात्ररेशः।—Ibid.

³ चजादीनां षाएमासिकीमूर्था ग्राइयेत । तेनाश्वखरोष्ट्रवराष्ट-वजा बाखाताः ।—Ibid.

charge of this important duty was secured by a healthy rule providing that when, owing to defects in medicine or carelessness in the treatment, the disease of an animal became serious, a fine of twice the cost of the treatment should be imposed; and when, owing to defects in the nature of the medicine itself, the animal died, a fine equal to the value of the animal was imposed.¹

Lastly, there were several humane regulations to prevent the cruel treatment of animals. There was a fine of 1 or 2 paṇas² by which causing pain with sticks, etc., to minor quadrupeds was punished. This fine was doubled when the beating caused the animal to bleed. In the case of larger quadrupeds the above rates were doubled, and, in addition, an adequate compensation was demanded to cover the expense of curing the beasts.³

¹ बाज्यस्याधितानां गोपाज्यकाः प्रतिकुर्युः।—Ibid.

क्रिया भैषच्यसङ्गेन याधिवृद्धी प्रतीकारिद्युणो द्षः। तदव-रोधेन वैज्ञाये पवमूखं द्षः। तेन गोमण्डलं खरोष्ट्रमस्विमजाविकं च याखातम्।—Bk. II, चाक्षाधचः, p. 135.

² A paṇa is a weight of copper used as a coin=20 mashas=4 kakinas.—Monier Williams.

³ चुद्रपद्भनां काष्ठादिभिर्दुःखोलादने पणो दिपणो वा दण्डः। शोणिकोत्पादेन दिगुणः। महापद्भनामेतेव्यवस्थानेषु दिगुणो दण्डः, समुत्थानवयस्था—Bk. III, दण्डपादधान्, p. 197.

We find it laid down that cattle such as a calf, bull or milch cow must not be slaughtered. A fine was imposed on those who slaughtered or tortured the animals to death.¹

We have seen already how the diet of cattle was regulated. We shall now see what arrangement was made for grazing them on pastures. For opening, preserving and improving the grazing grounds, a separate superintendent, called विवीताध्य , was appointed. He had to observe various rules regarding the working of his department. We find it distinctly laid down that the same forest could not be used as pasture for the cattle of neighbouring villages and towns throughout the whole year. Particular forests were assigned to particular seasons (ऋतुविभन्नभरक्षम्). Thus a system of rotation was introduced by which the pastures were kept up unimpaired, with their resources unexhausted by continuous use.2 Pastures were generally opened

¹ वत्सो ष्टमो घेनुचीमानध्याः। घातः पञ्चाश्चत्को द्ण्डः। क्रिष्टघातं घातयतस्य।—Bk. II, स्त्रनाध्यचः, p. 122.

² जुञ्जतश्वगणिभिरपास स्त्रेमशास्त्रपरवाधभयमृतुविभक्तमरण्यम् चार्ययु:—Bk. II, गोऽध्यतः।

in forests, in uncultivated tracts, and in intermediate areas between places infested by wild animals, thus promoting at the same time the reclamation of waste lands.¹ There were thus several pastures in a locality, and it was the business of the herdsman to see which of them would suit the cattle under his charge. He was naturally guided by two considerations, viz. the physical strength of his cattle and the degree of protection from danger available either from persons or from the security of the place.²

As to the kinds of animals that were allowed admission into the grazing grounds, we have information from two passages,³ the first of which mentions cows, buffaloes, goats, sheep, asses, camels, horses, and mules; the second, which appears in a different context, referring

¹ चक्रधायां भूमी पग्रभो विवीतानि प्रयच्छेत्। (Bk. II, भूमि-च्छिदविधानम्, p. 49); भयानारेषु च विवीतं खापयेत्। (Bk. II, विवीताध्यचः, p. 141); and च्टतुविभक्तमरण्यम् चारयेयुः (supra).

² उपनिवेशदिग्निभागे गोप्रचारान् वलान्वयते वा गवां रचा-सामशीच ।---Bk. II, गोऽधचः।

² (i) गोमचिषमजाविकं खरोष्ट्रमञ्चतराच व्रजः—Bk. II, समा-चर्नृससुद्यप्रसापनम्, p. 60.

⁽ii) गवाश्वरथोष्ट्रानां च त्रजः—Bk. VII, चीनशक्तिपूरणम्, p. 305.

to cows, horses and camels as being the animals that flourish on pastures and are the source of power to the king.

The safety of the cattle was one of the chief concerns of the superintendent of pastures. It was ensured by the appointment of hunters, who maintained a pack of hounds to aid them in their work of watching thieves and enemies and warding off danger from snakes, tigers, etc.¹ The hunters had recourse to the following means of calling in the aid of the king and the king's men:—

- (i) Blowing conch-shells and beating drums (सङ्घन्द्रभगव्दम्).
- (ii) Remaining concealed amid trees and mountains, and afterwards sending the information (भैडव्य-विकड़ाः).
- (iii) Riding away on swift horses, etc. (शीव्रवादनाः).
- (iv) Flying carrier pigeons belonging to the king's household, with royal passports attached to them (राजः सदायुक्तैः स्टब्क्योतेः).

¹ चोर-यालभयाजिमारणानि ग्रोधयेत्। सुन्धकश्वरणिनः परि-व्रज्ञेयुररणानि—Bk. II, विवीताधचः, p. 141.

सुञ्चकस्मानिभिरपास सेन-बालपरनाधमयमृतुविभन्नमर्थाम चारचेयु:—Bk. II, गोऽध्यत्तः (also quoted supra).

(v) Announcing danger by a succession of beacon fires (भूमाग्रिपरम्पर्या).¹

Besides these general precautions that had to be adopted by the superintendent of pastures, the duty of taking special protective measures was thrown on the herdsmen themselves. They had to attach bells or other sounding instruments to the necks of timid animals. These served the double purpose of scaring away snakes and other undesirables and of helping the herdsmen to easily find out, by following the direction of the sound, the animals that went astray.2 When the cattle required watering and bathing, their safety was secured by leading them only to those streams and ponds which were marked out as being free from mire (अवर्म) and crocodiles (अयाह), and the approaches to which were gradually sloped instead of being abrupt and steep (समयूढ़तीर्थ).3

[ा] तस्करामिनाभागमे सङ्घानुन्दुम्सम्बन्धाः कुर्युः। सैस्टिस-विक्वा वा, सीप्रवादमा वा, समिनाटवीससारं च राज्ञोग्टस्क-पोतिर्मुदायुक्तीर्दार्ययुः, धूमाप्रिपरम्परया वा।—Bk. II, विवी-ताथचः, p. 141.

² सर्पयालवासनार्थं गोचरानुपातज्ञानार्थं च चखूनां घष्टातूर्यं च बन्नीयुः।—Bk. II, गोऽध्यचः।

⁸ समयूदतीर्थमकर्मगाचमुदकमवतार्येयुः पालयेयुच-Ibid.

Another direction for the guidance of the herdsmen was that they should divide the cattle, while grazing, into groups of ten according to colour, the object being to avoid confusion between herds and to facilitate the herdsman's work of singling out his herd after grazing. The cowherds were strictly prohibited from allowing the bulls under their charge to fight in the grazing grounds, and were fined for violating the rule.²

There were also a few rules applying to losses of cattle by theft or otherwise. If any animal were stolen, or killed by snakes, etc., or died through old age or disease, the herdsmen had to report it forthwith to the superintendent of cows; otherwise, they had to pay as penalty the price (रूपम्ख) of the animal lost.³ If an animal belonging to the flocks under गोडधाव: were killed or stolen, the crime was visited with capital punishment; but if it were

¹ वर्णावरोधेन दशवर्गाणां रचणं करणीयम् ।—Ibid.

² यूथरणं वृषेणावपातयतः पूर्वः साइसद्षः घातयतः उत्तमः। (पूर्व्यसाइसद्षः—a fine ranging from 48 to 96 paṇas)—मोऽध्यसः।

³ स्नेनयाज्ञ सर्प-प्राच-गटचीतं व्याधिकारायसम् च श्वावेद्येयु-रत्यया रूपमूच्यं भकोरन्।—Ibid.

replaced by another, only a fine was inflicted. Rewards were also given to those who recovered the stolen cattle from thieves.1

¹ खरं इना घातथिता हती हारियता च वधः। परपद्भनां राजाक्केन परिवर्णीयता रूपसा प्रतेवसा पूर्वी साइसद्खं द्यात्। सदेशीयानां चोरहतं प्रत्यानीय पणितं रूपं हरेत्। परदेशी-यानां मोचयिताऽर्धं दरेत्—Ibid.

CHAPTER III.

THE DEPARTMENT OF LIVE STOCK (continued):

GAME, FORESTS AND HORSES.

In the last chapter have been described the functions of two of the six chief officers who were to perform special duties in connexion with live stock, viz. the superintendent of cows and the superintendent of pastures. The present chapter will detail the functions of three of the remaining officers, viz. the gamekeeper, the superintendent of forests, and the superintendent of horses.

THE GAMEKEEPER.

The Government of Chandra Gupta addressed itself in various ways to the protection of lower animals. There were issued specific regulations affording State protection to certain classes of animals, and for this purpose were

also established and maintained forests (अभयवन), the animals whereof were exempted from capture, molestation and slaughter. Into these forests none could enter, and the violation of this rule was visited with fines.¹ For the enforcement of these regulations a special superintendent was appointed called समायच (gamekeeper).

The following were the classes of animals that were given protection:—

- (i) Birds, deer and other animals living in the forests under State protection, as well as fishes in the ponds therein.²
- (ii) Those birds, fishes, deer and other animals that do not prey upon life.8
 - (iii) Calves, bulls and milch cows.4
 - (iv) Ocean animals resembling elephant,

े प्रदिष्टाभयानामभयवनवासिनां च मृग-पण्य-पिच-मित्सानां बिश्वविष्टां साम्यानां देणां कारयेत्। कुटुम्बिनां स्थायवनपरि-पहेषु मध्यमं (—Bk. II, स्त्नाध्यचः, p. 122.

उत्तम द्राङ, a fine ranging from 500 to 1000 paṇas; मध्यम द्राङ, a fine ranging from 200 to 500 paṇas.—Bk. III, सास्त्रम, p. 192.

- ² See the foregoing passage.
- अप्रवस्तवधानां मत्यपिचणां वन्धवधिः सायां पादोनसप्तविंग्रति
 (26३)—पणमत्ययं क्र्योत् । मृगपग्रनां द्विगणं।—(ऋनाध्यचः)।
- ' वत्सो हमो घेनुचैमासवध्याः। घातः पश्चाशत्को दण्डः। क्रिष्टघातं घातयतस्य।—Ibid.

horse, man, ox or ass. This, by the way, points to a close familiarity with the ocean and marine life.¹

- (v) Fishes in rivers, lakes and canals (क्रुपा).2
- (vi) A few game-birds, specifically named as follows: चारच (crane) in rivers, lakes and canals, क्रोच (osprey), उत्कोशक (sea-eagle), दालूच (gallinule, an aquatic bird), चंच (goose or gander, swan, flamingo, etc.), चक्रवाक् (Brahmany duck), जीवश्लीवक (a kind of pheasant), मृजराज (fork-tailed shrike), चक्रीर (partridge), मक्क्रीकिंच (cuckoo), मयूर (peacock), ग्रक (parrot), महमग्रिका (Turdus salica—birds like mainâ).8
- (vii) Those birds and beasts that were regarded as sacred.4

Moreover, tolls were levied upon the capture

¹ सामुद्र इस्य स-पुरुष-ष्टष-गर्धभाक्ततयः--स्त्रनाध्यचः।

² मत्स्याः नादेशास्त्रटाककुस्थोद्भवाः—Ibid.

[ै] सार्धा नादेयास्वरात कुत्थोद्भवाः। क्रीय-उत्क्रीम्क-दात्यूच-इंस-चक्रवाक्-जीवञ्चीवक-भृक्षराज - चकोर-मत्तकोकिस-मयूर-ग्रक-मदन-मारिका विचार-पिचणो माक्रस्याचान्येपि प्राणिनः पिचमुगा चिंसावाधेभ्यो रच्याः। रचातिक्रमे पूर्वसाचसद्ग्रः (a fine ranging from 48 to 96 paṇas).—Ibid.

⁴ साञ्चाक्षान्येपि प्राणिनः पश्चिमृगा विश्वाविक्षो रच्छाः— (Supra.) An interesting list of protected animals, some of which also appear in this list, is given in Asoka's Rock Edict V.

of those birds, beasts or fishes that preyed upon life and were thus the legitimate objects of capture. Of the live captured animals, the gamekeeper took a sixth, to be afterwards set at large in special forests under the State, and a tenth or more was appropriated by Government.1

For the safety of the protected animals in the State forests, any animal growing vicious or in any way harmful to the rest was captured and killed outside the forests.2

HUNTING FORESTS.

Hunting down game animals in the hunting forests was allowed, and not only the king himself but also private individuals enjoyed the privilege. We learn from Asoka's Rock Edict VIII that it was a practice with the kings to go out on hunting excursions, which Asoka abolished in the eleventh year of his reign. Megasthenes also describes the

¹ प्रष्टत्तिं सानां परिग्ट सीतानां षड्भागं ग्टक्कीयात्। मतस्य-पचिषां दश्रभागं वाधिकं सृगपग्रह्मां ग्रहेक्कं वाधिकं। पचिसृगाणां जीवत्षड्भागं सभयवनेषु प्रमुश्चेत्।—(स्त्रनाध्यत्तः)।

² दुष्टाः पग्रम्गयाला मत्यासाभयचारिणः खन्यच ग्रिस्थाने भ्यो वधवन्यमवा प्रयुः।—Ibid.

grand scale on which the royal hunting was organized.1

It seems from the extract of the Arthasastra quoted below that the king had a
hunting forest exclusively for his own use. It
was provided with only one entrance (एक दारं)
and had a canal running round it to ward off
intrusion (खानगुन्न). Inside were planted fruittrees, thornless plants, creepers and shrubs
(खादु पचगुच्चमकण्डिक मुनम्), and there was also a
large tank (जनाननोगाम्यं). There roamed at
large not only the milder game animals (दानम्गच तुष्पद्) but also some of the wilder ones, but
deprived of their natural offending weapons
like nails and teeth: viz. tigers, male, female
and young elephants, and other game animals
(भग्नखदंष्ट्याज-मागेयुक-चिन-चिन्नजन-मृग्यनं).2

Besides this imperial hunting forest, there were other hunting forests 3—all under the

¹ Megasthenes, Bk. II, Fragment xxvii.

^{&#}x27; तावन्याचमेक द्वारं खातगुत्रं खादु पखगुक्यगुक्षमक प्टिक हुन-सृत्तान तोया श्र्यं दान्तमृगच तुष्यदं भयन खदं ष्ट्रया स्नार्गा गुक- इस्ति-इसिनी-क सम-मृगवनं विद्यारार्थं राज्ञः कार्यत्।—Bk. II, भूनि-क्किड्डविधानम्, p. 49.

धर्वातिथिमृगं प्रत्यन्ते चान्यसृगमनं भूमिवभेन वा निवेभयेत्।
 —Bk. II, भूमिच्छिद्रविधानम्।

general superintendent (ज्ञयाध्य), who had another duty to perform in connexion with live stock, viz. the capture, when needed, of birds and beasts under his care.

THE SUPERINTENDENT OF HORSES.

The superintendent of horses had manifold duties to perform, viz.: (1) to keep a register of horses; (2) to classify them according to breed, age, colour, marks, size, etc.; (3) to provide for their stabling; (4) to determine their rations; (5) to break and train them according to their mettle; (6) to provide for their medical treatment by veterinary surgeons; and (7) to arrange for the taking of proper care of them in other ways, as detailed below.

Registration and classification.

Horses were registered not only according to their natural qualities, but also in several artificial but convenient ways. Thus, horses were regarded as belonging to the three classes or types of नीच्छ (fiery), भद्र (gentle) and मन्द

¹ सद्गारतुषभक्षानि मृगपग्रःपिचयाजीवाटाः काष्ठहणवाटा-सेति।—Bk. II, कुषाधचः, p. 100.

(sluggish).¹ They were also classified according to the places of their origin. Among these have been mentioned the following places, some of which have been identified:—

- (1) काफोज (Kâmbhôja), (2) सिन्धु (Sindhu), (3) घारक (Âraṭṭa), (4) वनायु (Banâyu), (5) वाक्तीक (Bâlhîka), (6) सौवीर (Sauvîra), (7) पापेय (Pâpeya), (8) तैतस (Taitala).2
- ¹ तेषां तीच्एभद्रसन्द्वग्रेन साज्ञाच्यासीपवाद्यकं वा कर्भे प्रयो-ज्योत्।—Bk. II, चाचाध्यचः, p. 188.
- ² प्रयोग्यानासुत्ताः काभोजकर्मे अवार्ष्टजवानायुजाः । सधमा वाक्षीक-पापेयक-सीवीरक-तिस्ताः । भ्रेषाः प्रत्यवराः ।—Ibid.

Identifications :-

- (1) का भोज Afghanistan: Kaofu (Kambu) of Hiuen Tsiang. (N. L. Dey's Geographical Dictionary.)
- (2) **ਚਿ-ਖ਼**—Sindh.
- (8) TTE—Punjab, land of the Arashtrakas, i.e. the kingless. (Cunningham's Geography of Ancient India, p. 215.)
- (4) वनायु—Arabia. (वाचस्यत्यम् of T. N. Tarkavachaspati.)
- (5) वाजीक—Balkh in Central Asia. (Monier Williams.)
- (6) सीबीर—or Sophir of the Bible; according to Cunningham, the same as the modern Eder in Guzerat. (Geogr. of Anc. Ind., p. 497.)

It is interesting to note that almost all the places mentioned above appear in the following sloka of the Rāmāyaṇa:—

काम्बोजविषये जातेवी ऋतिये स्थोत्तरीः वनायुकी पदीकीस पूर्णा स्ति स्थोत्तरीः।

-Bålakånda, Sarga 6, sloka 22.

नदीजा: in the sloka=सिन्नदी सभीपोद्भवा: ! (Ramanuja.)

Of these places the first four were held to supply the best breed of horses, and the remaining four, horses of the second quality. Horses of inferior quality came from other places. Thirdly, there was another method used to classify horses, viz. by the way in which horses were procured. According to this method, horses could be of the following descriptions:—

(1) पणागारिकं (brought to the sale-house for sale); (2) क्रयोपागनम् (recently purchased); (3) चाचवज्ञ अम् (captured in war); (4) चाजानम् (of local breed); (5) चाचायकागनम् (sent for help as loan); (6) वनस्कानं (wild and fresh from forest); (7) यावन्काच्चिकं (kept in the stable only for a while).1

A method of testing horses.

The mettle of a horse was inferred from certain measurements of parts of its body as explained below:—

The face (इख) of the best horse measures 32 angulas.

¹ सत्राधसः पणागरिकं क्रयोपागतमास्वलअमाजात साहाय-कागतकं वनस्कातं यावत्कालिकं वाश्यपर्यंगं कुलवयोवणेचिक्र-वर्गागर्मेलेंस्येत्।—(सत्राधसः)।

Its length (चायान), five times its face=160 angulas.

Its shank (জন্ধা), 20 angulas.

Its height (जन्हेंच), four times its shank = 80 angulas.

A defect of 3 angulas must be allowed in the above measurements in respect of horses of the second quality, and of 6 angulas in respect of inferior qualities.

The girth (परিত্যান্ত) of the best horse is 100 angulas;

of horses of second quality, 95 angulas; of horses of lowest quality, 90 angulas.

Stables.

The provision of suitable stables was one of the chief duties of the superintendent. This is also hinted at by Megasthenes.²

The size of each stable was of course determined by the number of horses to be kept therein. The length of each room of the

¹ द्वानिंग्रद्शुलं सुखसुत्तमायस्य, पश्चसुत्वान्यायामः, विंग्रत्यशुक्ताः जङ्गा, चतुर्जञ्च जत्वेषः, व्यशुक्तावरं मधमावर्योः, ग्रताशुक्तः परिणाहः, पश्चभागावरं मधमावर्योः।—Ibid.

² "There are royal stables for the horses and elephants . . ."
—Bk. III, Fragment xxxiv.

stable was to be double the length of a horse. It had four doors on the four sides, and an open space in the middle where horses could roll themselves.

The breadth of the apartment for each horse was to be four times the width of the horse, and its floor was to be paved with smooth wooden planks (सन्तप्रकाशारं). It must have a trough for food (सवादनकोष्ठकं), and be provided with apertures for the removal of excreta. The rooms should face preferably the north and the east. Horses, mares and colts had separate compartments.

There were spacious corridors (पत्रपीवा) in the stable provided with doors, and there were seats and pegs (पापन-पासका) for monkeys, peacocks, spotted deer (घषत), mungooses (नकुछ), partridges (पकोर), parrots (ग्राक) and mainâs (गारिका). The object of keeping these animals in the stable becomes apparent from a passage

¹ स्वश्विभवेनाथतासञ्चानाम् द्विगुणिवस्तारां चतुर्द्वारोपावर्तने-नमध्यां सप्रयीवां प्रदारासन फलकयुक्तां वानर-सयूर-ष्टवत-नकुल-चकोर-ग्रक-ग्रारिकाभिराकीणां ग्रालां निवेग्रयेत्।

चश्वानाम् चतुरसञ्चल्पणस्त्रकासारं सखादनकोष्ठतं समूच-पुरीषोत्सर्गमेकेकशः प्राङ्मुखमुदङ्मुखं वा स्थानं निवेशयोत्। शास्तावशेन वा दिखिभागं कल्पयेत्। वङ्वाष्टपिकशोराणां एकान्तेषु।—(चश्चाधचः)।

in Bk. I, निमानमिषिधः, which runs as follows: "Cats (मार्जार), peacocks (मयूर), mungooses (नकुछ) and spotted deer destroy snakes; parrots (म्कर), mainâs (मारिका) or fork-tailed shrikes (मृकराज) shriek out when they smell poison; ospreys (क्रीम) get excited in the vicinity of poison, pheasants (जीवसीवक) feel distressed, cuckoos (मनकोकिछ) die, and partridges (चकोर) redden their eyes." It may be noted in this connexion that the practice of keeping monkeys in stables in the belief that horses keep good health in their company, still obtains.

Rations.

The superintendent regulated the rations of the horses under his charge in the following ways:—

For the best horse :--

Quantities. Modern equivalents.
2 drônas (होण) of any one of these grains,
viz. शांख, होचि (rice), barley (यव),
panic-seed or mustard-seed (प्रयङ्ग) halfdried or half-cooked, or boiled सुद्ग or
साथ (kinds of pulse) 9% chataks.

¹ मार्जारमयूरमञ्जूषप्रयतोत्सर्गास्सर्पाम् भचयन्ति । ग्राक्षणा-रिका भृजराजो वा सर्पविषशक्षायां क्रोग्रति । क्ष्रीश्चो विषाभाग्रे मार्यात । ग्रायति जीवश्चीवकः । चियते मत्तकोकिलः । चको-रस्राचिषी विर्ञ्जते ।—Bk. I, निशान्तप्रणिधिः, p. 40.

	Modern equivalents.							
1 prastha (प्रस्य) of	oil .							1 kancha.
5 palas (पदा) of sal	t							$2\frac{2}{5}$ sikis.
50 palas of मांच (fl	eshy j	ert c	r pu	ılp	of f	ruit	s)	1 chatak 4 sikis.
1 adhaka (चाडक)	of रस	(dri	ak)					1g chatak.
2 adhakas of curd	(दिधि)							22 chataks.
5 palas of sugar	(चार	() f c	r n	ıak	ing	foc	ođ	
palatable				,				2½ sikis.
1 prastha of liquor								1} kancha.
2 prasthas of milk	(पय:)							22 kanchas.

Those horses that were tired by long journey or by carrying loads were given 1 prastha of oil or ghee more for perfuming their food (चनुवासन), 1 kudumba (1½ siki) of oil or ghee for rubbing over the nose, ½ bhâra (भार), i.e. 1½ seer, of meadow-grass (यवस), twice as much of straw (हस) and hay for a bedding of 6 aratins (12 ft.) or as much straw as can be held within the arms (यहरण: परिचेप: पंजीबयादो वा हसस्य सुजदयपरिचंगपादाः).

The same quantity of rations less by onequarter was given to horses of medium and inferior quality. A draught horse or stallion of medium size was given the same quantity as the best horse, and draught horses of lower size the same quantity as a horse of medium quality.

Mares and mules (परमाम्) were given one-

quarter less of rations. A mare that had just given birth to a colt was given 1 prastha or 1½ kancha of ghee for the first three days; then for the next ten days, 1 prastha, i.e. 1½ kancha, of wh (i.e. pounded gram, etc.), and oil or ghee mixed with medicine. Afterwards, she was given yher (boiled rice), way (meadow-grass), and other things suited to the season.

Half the rations of mares was generally given to colts; but a colt of ten days was fed on \(\frac{1}{4} \) kudumba (\(\frac{1}{4} \) siki) of ghee, I kudumba (1\(\frac{1}{2} \) siki) of wm and I prastha (1\(\frac{1}{5} \) kancha) of milk till it was six months old. Gradually, the above rations were increased half as much during each succeeding month, with the addition of I prastha of barley, till it became three years old. It was given I drôna (4\(\frac{4}{5} \) chataks) of barley until four years of age, when it became fully developed and serviceable.

Training given to horses.

Horses were employed for the purposes of war or for ordinary purposes, according to their mettle. They were therefore trained not only for ordinary work of the State in times of peace これ はおまま かんしょう こうきょう はいかんけってもの

(भौपवास्त्रकं), but also for the more difficult movements required in war (पदास्थान). The latter movements were of the following kinds:-

- (i) वखान (circular movement):—(a) चौपवेण्क (turning in a circle with a diameter = 1 cubit); (b) वर्षमानक (advancing, and yet turning in a circle as above); (c) यसक (running the figureof-eight); (d) बाजीद्युत (running and jumping simultaneously); (e) इयाइ (movement of only the forepart of the body); (f) ह्वा खी (movement of only the hinder portion of the body).
- (ii) नीचेंगेन (slow movement with the head and ears kept erect):—(a) प्रकीर्णक (a combination of the movements mentioned above); (b) प्रकीणीं (same as the previous, but with one kind of movement kept prominent); (c) निषष (a movement in which the hinder part of the body is kept steady); (d) पार्शन्हम (movement sideways); (e) जिम्मार्ग (movement up and down like a wave); (f) मरमन्नी ड्रिन (playing like a मरभ, a kind of deer); (g) मरभञ्जन (leaping like a मरभ); (h) नितास (a movement using only three legs); (i) वाद्यान्दम (moving right and left); (j) पचपारिष (movement by using two and three legs alternately); (k) पिंचायत

- (pacing like a lion); (l) साधून (long strides); (m) क्लिप्ट (moving straight without a rider); (n) साधिन (moving with the forepart of the body bent); (v) वृद्धिन (moving with the hinder part of the body bent); (p) प्रवाधिकीण (zig-zag motion).
- (iii) सञ्चन (jumping):—(a) किपमृत (jumping like a monkey); (b) भेकमृत (jumping like a frog); (c) पक्षम (sudden jump); (d) पक्षमादमृत (jumping with one leg); (e) कोकिसमंगिर (leaping like a cuckoo); (f) जरस (dashing with the breast almost touching the ground); (g) वक्षमारी (leaping like a crane).
- (iv) घोरण (gallop):—(a) काइ (imitating the flight of a heron); (b) नारकाइ (dashing like a water-duck); (c) नगूर (running like a peacock); (d) चाईनगूर (half the speed of a peacock); (e) नाजूच (dashing like a mungoose); (f) चाईनगूच (half the speed of a mungoose); (y) नाराच (running like a boar); (h) चाईनाराच (half the speed of a boar).
- (v) নাবৌষ্ট is ৰসামনিকাৰ, i.e. response to signals. Over and above these a few kinds of trot are enumerated as follows:—
- (1) मार्ग:—(a) विक्रम (trotting according to strength); (b) भद्राचाच (trotting with good

breathing); (c) भारवाद्य (trotting with a load on the back). (2) धारा:—(a) विक्रम (pacing according to strength); (b) विज्ञान (pacing with circular movement); (c) जपकण्ड (pacing with gallops); (d) जपजन (middle speed); (e) जन (low speed).

Medical treatment of horses.

The superintendent had to report to the king the number of horses that were diseased or had defective limbs (अवस्थान्यक्याचितांचानेद्येत्), and put them under the treatment of veterinary surgeons, whose duty was not only to treat the diseases of horses, but also to see that all parts of their body were harmoniously developing. They gave advice to the superintendent regarding the change of diet of the horses to suit particular seasons. They were fined if the diseases were aggravated or took a bad turn, and had to make good the loss if a horse died through defective treatment.²

¹ The explanation of the above technical terms has been taken mostly from the Commentary of Bhaṭṭasvāmī.

² चत्रानां चिकित्सकाः ग्ररीरऋासष्टद्विप्रतीकारमृतुविभक्तम् चाचारम् (प्रतिदिग्रेयुः)—(चत्राध्यचः)।

क्रियामेषच्यमक्केन व्याधिवृद्धी प्रतीकारद्विगुणी दण्डः। तदप-राधेन वैलोग्धे पचमूच्यं दण्डः।—Ibid.

A few other rules.

As regards the distances to be traversed by draught horses, the rule was that they should run six, nine, and twelve yojanas¹ according to their quality. Five, eight, and ten yojanas were the maximum limits of distance for riding horses.

Horses disabled by disease, age or war and rendered unfit for active service were relieved from all work.²

The grooms (ख्रमादक), those who bound them in stables (ख्रमादक), supplied meadow-grass (याविकः), prepared the meals of horses (विधापाचक), watched the stables (ख्रानपाचक), dressed their hair (केंग्रकार), and detected poison (चाइस्टीविन्) were liable to a fine of a day's wages for neglect of duty. The चाइस्टीविदः were the grooms, cooks and veterinary surgeons, for it was they who had to taste the

¹ A yojana = θ_{11}^{0} miles.

षस्य द्वादशेति योजनान्यधा रयानां, पश्योजनान्यधाय-भानि दशेति प्रष्ठवाद्यानामश्चानामधा।—(श्वशधायः)।

² युद्ध्याधिकराकर्माचीणाः पिष्णगोचारिकाः स्मुरससरप्रयोज्याः। पौरकामपदानाम् ऋषैन वृषा वहवासु आयोज्याः।—Ibid.

[ै] कमौतिक्रमे तेषां दिवसवेतन चहेदनं कुर्यात् ।—Ibid.

food of the horses. The attendants of horses were enjoined to make a careful use of what they brought from the treasury or the storehouse for purposes of the stables, so as to prevent waste.2 There were expert ropemakers for making ropes for horses; while the manufacture of accoutrements was the work of the chariot-makers (स्ताः).8

Ceremonies observed for the welfare of horses.

In conclusion, it should be remarked that horses were accorded an almost human treatment, which indicates the great value attached Besides the rules prescribed by exto them. perience and science to secure the health and well-being of horses, there were certain religious ceremonies observed to influence unseen forces in their favour. The horses were regularly washed, bedaubed with sandal, and even garlanded twice a day. On new-moon days, the

¹ विधापाचक स्वयासक चिकित्सकाः प्रतिसादभाजः ।—Ibid.

² को शको छागाराभ्याम् च गटचीला सासकाभम् खखाचि स्थन-येत् ।—Ibid.

[ै] तेषां बन्धनोपकरणं योग्याचार्याः प्रतिदिश्रेयुः। सांग्रामिकं र्थाश्वासकारं च स्ताः ।—Ibid.

sacrifice to $Bh\hat{u}tas$ was performed; and on full-moon days, auspicious hymns were chanted. On the ninth day of the month of $\hat{\Lambda}$ svin, and also at the beginning and end of journeys, the priest invoked blessings on horses by performing the ceremony of with, or the waving of lights.

विरक्षसानसभानां गय्यसाख्यं च दापयेत् स्यासियषु भूतेच्याः ग्राक्कोषु सिस्तिवाचनम्। नीराजनासासयुजे कारयेज्ञवक्येचिन याचादाववसाने वा व्याधी वा शान्तिके रतः।—Ibid.

CHAPTER IV.

THE DEPARTMENT OF LIVE STOCK (continued): ELEPHANTS.

ONE of the four well-known divisions of the old Hindu army was the elephant force, on the efficiency of which depended to a great extent the efficiency of the army as a whole. There has been on record many a battle in early Indian history in which elephants carried the day. Hence the rearing up of a good breed of elephants was recognized as one of the special cares of Chandra Gupta's Government, which made itself famous by the strength of its army organization. The killing of an elephant was visited even with capital punishment, which shows the great care taken for them by the State.

¹ The references in this chapter are to भूमिच्छिद्रविधानम्, इस्त्यध्यः and इस्तिप्रचारः Bk. II.

The department of elephants had several officers. At the head was इस्त्यथच, the superintendent of elephants, whose main duties were (1) to see that the elephant forests were well protected, and (2) to superintend the internal arrangements in the elephant stables and the proper training of elephants by experts. The immediate work of the maintenance and upkeep of the elephant preserves was, however, not his look-out. This was left to another officer called नागवनपास, the superintendent of elephant forests. He had a staff of assistants called नागवनाध्यच's, the keepers of elephant forests, through whom he had to acquaint himself with the limits as well as the paths leading into and out of the forestsespecially those that were mountainous or boggy or contained rivers or lakes. The capture of elephants was also their concern, in which they were helped by a special set of men. These were: (i) चिंचपक (elephant drivers); (ii) पाइपाणिक (those who slip nooses round the legs of elephants); (iii) चैनिक (boundary guards); (iv) पारिकिमिक (servants for miscellaneous works); (v) वनचरक (foresters); and (vi) चनीकस्थ (elephant trainers).

The need for the presence of elephant trainers (चनीकस), mentioned last in the above list, was owing to the fact that they alone could readily ascertain those elephants that were fit for capture; for certain classes of elephants were exempted from capture, viz. those that had small tusks like those of female elephants (मूद),¹ diseased (चाचित) or pregnant elephants as well as those that suckled their young (मिनेपो and चेनुता), and elephants below twenty years of age or without tusks (मनप); young elephants (निक) were as a rule allowed to remain at large, and only a few were captured to train for sports.

The captors, with five or seven female elephants (चिष्यम्बा) which had been specially taught the devices of capture, roamed about in summer—the season for the capture of elephants—in the forests, and traced the whereabouts of herds of elephants by following the course of their dung and urine (चिष्यम्बार) पक्षमाम) and by observing their footmarks (पदा), the spots where they reposed (म्यास्वान), and the banks of rivers, lakes, etc., damaged by them (क्रम्पान) स्थाने होने). The captors passed along the

¹ Vide Bhattasvânii's Commentary.

lines of भगानकी trees (Semecarpus anacardium), called Bhelâ (भेजा) in Bengali. One of the reasons for this was perhaps that the trees, being very shady, afforded a good resting-place for the animals, where the herds or clues to their wanderings were most likely to be found. It is also possible that the leaves and branches of the trees formed a favourite food of the animals, for भगानक is mentioned as a medicinal plant in the extant works¹ on चलापुर्वेद and चनाम alike, the properties of which, according to medical authorities (quoted in Elephants and their Diseases, by Lt.-Col. Evans, p. 144), are mainly those of a stimulant, and admit of both internal and external uses.

The exact devices that were employed for catching the elephants are not described in the Arthasastra, but an extract from Megasthenes

> ¹ क्षमयो यदि वाले स्युर्जाता भक्षातकैः सह विपाच सार्पपं तेसं स्पाष्टं चपयेद्वणे । —हरत्यायुर्वेदः, by पास्तकाप्यमुनि, p. 208. सधुकं वेग्ररं पर्वं भक्षातकविभीतकम् ग्राहुपुष्यं वहा सारं समभागेन मित्रितम् कासार्त्रस्यः साथोऽयं विप्रस्तात्रकः जत्माहवर्द्धः सदस्या कायाधिदीपकः । —सत्रवेदाकम्, by मकुस्न, p. 58; see also p. 54 (ibid.).

bearing on this point is worth quoting. It runs as follows:—

"The manner of hunting the elephant is this. Round a bare patch of ground is dug a deep trench about 5 or 6 stadia (a stadium=2021 yds.) in extent, and over this is thrown a very narrow bridge which gives access to the enclosure. Into this enclosure are introduced three or four of the best-trained female elephants. The men themselves lie in ambush in concealed buts. The wild elephants do not approach this trap in the daytime, but they enter it at night, going in one by one. When all have passed the entrance, the men secretly close it up; then, introducing the strongest of the tame fighting clephants, they fight it out with the wild ones, whom at the same time they enfeeble with hunger. When the latter are overcome with fatigue, the boldest of the drivers dismount unobserved, and each man creeps under his own elephant, and from this position creeps under the belly of the wild elephant and ties his feet together."-Megasthenes, Bk. III, Fragment xxxvi.

The sources of supply of elephants in those days were the following places, viz.: (i) किन्छ , (ii) चन्न, (iii) करम (eastern portion of the district of Shahabad in Behar), supplying elephants of the best quality; (iv) भाष (the east), (v) इसान, (vi) चपरान (western countries, viz. Konkan and Malabar), supplying elephants of medium quality; and (vii) हराइ (Guzerat),

が、軍

¹ N. L. Dey's Geogr. Dict.

[ै] दशाने has been identified with modern Mandasore.

³ Vide N. L. Dey's Geogr. Dict.

(viii) पश्चनन,¹ supplying elephants of inferior quality.

STABLES.

There were two sets of stables, one in the fort and the other outside; in the former were kept those elephants that had already been trained for war and riding, and in the latter those that were being tamed, together with the refractory ones.

An elephant stable was twice as high as the length of an elephant, and its width was half its height; it was made to face either the north or the east, had separate apartments for female elephants, had a spacious corridor (पीन), and was provided with smooth, square, T-shaped tether-posts called कुमारी, which were as long as the length of an elephant, and between which were placed apertures for the removal of excreta. Their place for sleeping was similar to that for standing, with this difference, that in one half of it was a raised platform for the elephant to lean upon.

¹ पश्चन probably stands for पश्चनण, a place in Northern India, which is referred to in the Mahabharata, Sabha Parva, ch. 27, in connexion with the Northern conquests of Arjuna, thus: किरीटी जिनवान राजन देशान पश्चनणांकाः ॥

Stabling staff.

For the stabling of elephants a good number of officers was employed. A list of such officers set forth in the Arthasastra mentions the following: (i) चिकित्सक (elephant doctors); (ii) चनीकस (elephant trainers); (iii) चारोचक (ordinary drivers or malhuts); (iv) चाघोरण (expert malhuts able to control the pace and movement of elephants); (v) चिचापाच (grooms or elephant keepers); (vi) चीपचरिक (attendants); (vii) विधापाचक (cooks); (viii) याविक (grass suppliers); (ix) पादपाणिक (those who put fetters round their feet); (x) क्रवीरच (guards); (xi) चपणाचक (those who take care of the elephants at night).

These officers were given wages and allowances of food, and a deduction was made from their dues for negligence in their duties, e.g. allowing a stranger to ride the elephants, striking them in the vital parts of their bodies, not cleansing the stables, etc.

Daily routine.

Their bathing hours were fixed once in the morning between 6 and 7.30 and again in

the afternoon between 3 and 4.30. The two bathing hours were followed by hours for meals. The forenoon was the time for their physical exercise, and afternoon for their training. Two out of the eight parts of the night were spent in sleep (सम) and three in drowsiness (पंत्रामीसानिक).

Rations.

The quantity of ration to be given to an elephant was regulated generally according to its age, which was inferred from its size and other physical features; and for this purpose elephants were divided into three groups, viz.:—

(i) those that were 14 feet high, 18 feet long, and 20 feet in girth, and were from these measurements inferred to be of forty years of age; (ii) those that were thirty years old; and (iii) those that were twenty-five years old.

The diet for the second group was onequarter less than that of the first; and the diet of the third group was one-quarter less than that of the second. The dietary of the first group comprised the following:—

Quantities.					Modern equivalents.	
1 drôna of rice (त पहुंस)					4 chataks.	
l âdhaka of oil (तेंच)					1; chatak.	
8 prasthas of ghee (বিশিষ)					83 kanchas.	
10 palas of salt					4 [*] sikis.	
50 palas of मांस, i.e. fleshy parts or pulp of						
fruits			•	٠	1 chatak 4 sikis.	
1 adhaka of TT (drink) or } 2 adhakas of curd			•		1; chatak.	
10 palas of sugar (খাবে) for making i				food		
palatable					4t sikis.	
1 adhaka of liquor (मद्य) or 2 adhakas of milk (पद:)	•	•			1} chatak.	
2 bhâras of meadow-grass (यवस)					6 seers.	
21 bharas of अव (sporting-grass)					64 seers.	
bhara of hay					‡ seer.	
And any amount of stalks of various sorts of pulse.						

1 prastha of oil ($1\frac{1}{5}$ kancha) and $\frac{1}{3}$ prastha of the same ($\frac{3}{4}$ siki) were given respectively for rubbing the body and the head with, and $\frac{3}{4}$ prastha for a light in each apartment (प्राइतिषक).

An elephant of 16 feet in height, and in rut, was given the same amount of food as one of 14 feet, and the rest when in rut were given food according to their size. A young elephant captured for sports (fam) was fed on milk and meadow-grass.

TRAINING OF ELEPHANTS.

It was one of the most important duties of the superintendent of elephants to see that proper training was given to the animals under his charge by expert trainers. The elephants were divided into the following four classes according to their training:—

(i) दस्य (those that were being tamed); (ii) धाताझ (those trained for war); (iii) धपताझ (those trained for riding, etc., in times of peace); (iv) बास (those that were refractory and difficult to be broken).

The taming of elephants had several clearly marked out stages.

The process began when the animal was brought to attach itself to a herd of tamed elephants, and lost its wildness by contact with them; this was called the यूयान (juthagata) stage of the training. Then the animal was cleverly thrown into a pit specially dug, to subdue its ferocity; this was the यपपानगन (apapâtagata) stage. The next step in the taming (वार्यम - vârigata) was to keep the animal confined within a particular area of the forest instead of allowing it to roam at large.

The next disciplinary measure was to tie the animal to a post when it was found to be sufficiently gentle for the purpose (जन्मन — stambhagata). The taming was completed when the elephant became so gentle that it allowed its driver or trainer to sit on its withers without protest; this was the जन्मन (skandhagata) stage.

Of the elephants tamed in the above way some were selected for military training and some for purposes of ordinary work.

As regards military training, the preliminary steps adopted were to accustom the elephant to girths (कच्याकर्ष) and collars (पेवेथकर्ष) and to co-operation with a herd in a common work (यूथकर्ष). Then the animal was taught the following movements necessary for war:—

(i) जपसान (rising, bending, jumping over fences, etc.); (ii) संवर्षन (turning); (iii) संवान (moving forward straight or transverse, or making serpentine movement); (iv) वधावध (killing and trampling down); (v) पित्रवृद्ध (fighting with other elephants); (vi) नागरावस (assailing forts and cities); and (vii) संवानिक (other cognate movements relating to war).

With regard to the training of elephants in

riding, they were first taken through the preliminary processes of discipline, through भारदतको, ' दीनकमं or drudge-work, and नारोहकमं or responsiveness to signs. Then they were trained in the following movements, viz.:—

(i) षाचरण (nimble motion); (ii) कुझरीपवाद्य (being mounted from another elephant); (iii) घोरण (trotting); (iv) षाधानगतिक (moving with two or three legs); (v) यद्युपवाद्य (readiness to be driven by means of a stick only); (vi) नोचोपवाद्य (submitting to an iron hook); (vii) ग्रहोपवाद्य (readiness to be driven by mere signs); and (viii) मागीयुक (being trained in hunting).

Lastly, there were those elephants that were regarded as the failures of training. Their viciousness generally consisted in aversion to work, obstinacy, perversity, unsteadiness and bad temper. There were three classes of such elephants, viz.: (1) suddha, having unmitigated

प्राक्ततः शारदो यस सप्तभातुचयासाया प्रक्रत्या व्याधिभिस्तापि दुर्व्यस्त्रीपर्धरिप।

¹ Bhatṭasvāmī has explained शार्यकर्म as the process by which elephants unfit for work owing to excessive fatness or leanness, or other defects, were rendered useful. The word शार्य also occurs in the सस्यायुक्ट of पास्कापसानि, p. 49, to denote elephants that were weak, naturally, or through some disease or effect of medicines:

viciousness; (2) suvrata, clever at mischief; and (3) vishama, i.e. having vices of all types. The only way to keep them under control was by punishment and the use of fetters and other means to control their vicious tendencies. For these purposes there were in use bridles (पारायण), leg-chains (परिचेप), frontal fetters (जनर), hooks (www), and other mechanical devices.

ORNAMENTS.

Among the ornaments of elephants are mentioned necklaces such as वैकायनी, कुरप्रमास, as well as housings (चाचरण) and howdah (क्रम); and among war accoutrements are mentioned mail-armour (वम्में), clubs (तीमर), quivers of arrows (म्दावाप), etc.

MEDICAL TREATMENT.

As in the case of cows and horses, there were doctors employed to apply medicines to elephants suffering from diseases due to overwork, rut or old age. Their chief duties were, however, preventive in their charactertaking care that the physical conditions surrounding the life of the elephants conformed strictly to the rules of hygiene and

sanitation (चानग्रहि). Failure to take the necessary steps for the health of elephants was punishable with fines. There was also inspection as regards the proper growth and harmonious development of all the parts of the body of an elephant. This was regulated according to several standards and types of its physical development.

There were also certain rules for the cutting of tusks of elephants. Elephants born in countries irrigated by rivers had speedy growth of tusks, which were cut once in two-and-a-half years; and for mountain elephants, whose tusks grew more slowly, it was done once in five years. The rule was to leave at the root a length equal to twice the circumference of the tusk measured at its base.

CEREMONIES FOR THE WELFARE OF ELEPHANTS.

Ceremonies were observed to propitiate unseen agencies for the welfare of elephants. Thus, with or the waving of lights was performed thrice daily in the rainy season and at the periods of conjunction of two seasons. Sacrifices to Bhûtas were also performed on

new-moon and full-moon days, as also to चेनानी or Kârtikeya, the god of war.

We have now completed our account of the Department of Live Stock in Chandra Gupta's Government, and have seen the comprehensive character of its scope and work touching the welfare and growth of the useful animals on which depended to a great extent both the economic prosperity and political security of the country.

CHAPTER V.

MEANS OF COMMUNICATION.

\S 1.—LAND ROUTES AND CONVEYANCES.

Considering the vast extent of the empire of Chandra Gupta, embracing as it did the whole of Northern India from the Bay of Bengal to the Arabian Sea, an area wider even than that of British India, it is evident that the machinery of government by which the administration of this mighty empire was carried on was highly elaborate and developed, the product of evolution through centuries. It implied the existence of all the principal factors on which depends the efficiency of such governments, viz., a well-disciplined army of sufficient strength, a well-organized system of administration, and a well-developed system of communication by which the heart of the empire was brought into constant and vital connexion

with its distant and various parts. We shall have occasion to speak in another place of the organization of Chandra Gupta's army and administration. In the present chapter we shall confine ourselves to an account of the means of communication that existed in Chandra Gupta's time, the network of roads, trade routes and water routes, etc., that, radiating from the centre at Pataliputra towards the four quarters of the empire, covered up the entire territory embraced by it. Among the principal agencies of transport, we shall have to refer to vehicles and conveyances as also to ships and boats which established and carried on the intercourse not only between the different parts of the country along the recognized water routes, but also the intercourse of the empire with the outside world across the seas.

As already pointed out, the trade routes led towards all the four quarters of the empire—north, south, east and west, as is apparent from the passages quoted below. The number of routes in each direction seems to have been determined by consideration of traffic. From this standpoint Kautilya regards the routes leading to the south as more important than

those leading to the Himâlayas; for while the latter brought to market the supply of blankets, skins and horses, the former facilitated the supply of such valuable commodities diamonds and other precious stones, pearls, gold and conch-shells, of which Southern India was the noted home for ages. On the same considerations it is also stated that of the southern trade routes the more important were those that passed by a larger number of mines, carried a larger volume of traffic in merchandise of various kinds, and were hence vused by a larger number of men. There were also other routes leading to the east and to the west, the importance of which was also 4 determined as above.1

One of these routes was undoubtedly what has been mentioned in Megasthenes as the "Royal Road" connecting Pâțaliputra with

¹ सखपथेऽपि—'' हैं नवतो दिचणापथा च्हे या न् हस्त्य अ-गळ-दना-जिन-रूप-सुवर्ष-पण्णास्तारवत्तराः''—(इत्याचार्याः)।
नेति कौटिन्यः—'' कम्बलाजिना अपण्यक्ताः सङ्घवद्यमणि-स्नाम्सुवर्षपण्या अभूततरा दिचणापथे। दिचणापथेऽपि वद्य-खिनस्तारपणः प्रसिद्धगितरक्प-यायामो वा विणक्पथः श्रेयान्। प्रमूतविषयो वा फल्लापणः। तेन पूर्वः पश्चिमस्व विणक्पथो याखातः।"—Bk. VII, कर्मापिः, p. 298.

² Megasthenes, Bk. IV, Fragment lvi.

the Indus valley, and enabling the power of Chandra Gupta to be felt even in the regions of the North-Western frontiers which had been newly wrested from the hands of Seleucus Nikator.

But roads and trade routes¹ had a political importance besides an economic. To have control over them meant over-reaching the enemy. They were the means of transport of troops, messengers, envoys, as well as weapons, armour, chariots, pack-animals, etc.

Roads and trade routes were of various kinds, with various designations. They were classified (1) according as they were used by beasts of burden, men on foot or in conveyances, and (2) according to the destinations they led to. Thus, the tistuit (4 dandas or 32 feet wide) was the king's highway. It owed its

¹ विषिक्षणः परातिस्थानस्य योनिः; विषिक्षणेन सि द्षान् गूढ्पुरुषातिनयनं भस्तावर्षयानवास्त्रक्रयस्य क्रियते। प्रवेशो निर्णयनं च।—Bk. VII, सीनशक्तिपूर्णम्, p. 805; सप्रतिविस्ति यानवासनपुरुषपरिवापः प्रतिष्ठेत, etc.—Bk. I, दूतप्रणिधिः, p. 80.

[ै] निर्धाषेशीस्याने च राजमार्गसुभयतः कतारचं द्षिशीस्पास-ग्राह्मसुप्रविक्तित्यकं गच्छेत्। न पुरुषसम्बाधमवगास्ति।—Bk. I, खात्मरचित्तकम्, p. 45; नयः प्राचीना राजमार्गास्त्य उदीचीना इति वासुविभागः।—Bk. II, दुर्गनिवेषः, p. 54.

name evidently to the fact that the king used it on solemn occasions, when it was cleared of crowds and guarded by soldiers with drawn swords. There used to be six such roads in a city, three running north and south and three east and west. Two was the broad road, 4 dandas or 32 feet wide, along which chariots could run with ease. There is also mention of a रथपथ, apparently for smaller chariots, as it was only 5 aratnis or 10 feet wide. The पद्मपण, having a width of 4 aratnis or 8 feet, was the road for cattle in general, while there were the महापद्भाषय for the larger animals, and the चुद्रपद्मपथ for the smaller ones, having a width of 2 aratnis or 4 feet.1 There were routes called बरोइपच (lit., for asses and camels). They were so made that they could be used whatever the season or the nature of the soil through which they passed. Besides the aforesaid roads, there was also distinguished a चक्रपण (cart-track) which admitted of a larger volume of traffic than the पादपय, and the मन्यपय

¹ It should be noted that these roads took their names from the principal uses for which they were meant. It must not be thought that a road for the purpose which its name implies was not put to any other use for which it was fit.

(2 aratnis or 4 feet wide) meant for pedestrians only. The अंग्रेश was a narrow road of the latter class.¹ Of these roads and routes some have been singled out in the Arthasastra as trade routes proper (विषक्षण). These are the अज्ञेष्य, पादपण, अंग्रेश and करोष्ट्रपण. The reason of this distinction seems to be that the trade routes were usually of very great length and passed through a variety of soils and climes.

As has been already mentioned, there was also a class of roads that were designated according to their destinations. The राष्ट्रपण (4 dandas or 32 feet wide) was the road leading to the districts. The road leading to pastures was known as विकास , and was of the same breadth. The approaches to the forts in the centre of 400 and 800 villages were known respectively as होण्डाज्यण and जानीयण्य, and were of equal breadth with the preceding.² The ज्योनीयण्य led to the fields

¹ दुर्गैनिवेश:—Bk. II; विवीत चेवपथि चिना—Bk. III; and कर्मास्थ-Bk. VII; तवापि चक्रपाद्पथ्यो क्रमप्यो विप्रज्ञा-रभावाच्छेयान् देशकालसभावनी वा खरीष्ट्रपथः चाभ्याम् चंसपथो व्याखातः—Bk. VII, कर्ममन्तिः।

[े] च्रष्टम्त्याम्यामध्ये स्वानीयं, चतुम्मत्याम्या द्रोणसुखं, दिमत-माम्या सार्वटिकं, दम्मामीसंप्रेण सङ्गुचणं स्वापयेत्।

[—]Bk. II, जनपद्निवेश:।

under cultivation (योनि=seed or grain). The road leading to a military station was called the यूचपय. The मामानपय, as the name indicates, led to the cremation-grounds, while the पामपय was a thoroughfare which led to and through a village. The above four classes of roads were all 8 dandas or 64 feet wide. The paths to forests were known as वनपय (4 dandas or 32 feet wide), and those leading to elephant forests were called चित्रपय (2 dandas or 16 feet wide). The roads leading to or passing over elevated and difficult places like embankments were designated as चेत्रपय (4 dandas or 32 feet wide).

Besides the above classes, there are mentioned a few other roads peculiar to forts²:—

(i) रचचर्यागचार, i.e. roads for chariots, paved with planks cut from the trunks of palms, or with broad and thick slabs of stones. (ii) प्रतोकी, which was a broad passage between two towers (चहाजन). (iii) देनपण, which was the passage leading to a temple. (iv) Paths which were as broad as a danda (8 feet) or two and were called चार्या.

¹ दुर्गनिवेश:-Bk. II.

² दुर्गविधानम्-Bk. II.

Among other minor roads may be mentioned the way, a defile or small path admitting passage for a single man. The small passage through fields, etc., and forward a road in the city on which the workshop for the State goldsmith was built.

The free flow of traffic along the established roads and trade routes was naturally one of the cares of the State, and all interference with it was punishable. Suitable fines were imposed for blocking passage, which varied with the importance of the roads. The fines for blocking or digging some of the roads mentioned above are thus laid down in the Arthaiâstra: for चुड़पग्रपथ and मनुष्पथ, 12 paṇas; for भदापग्रपथ, 24 paṇas; for चित्रपथ, 54 paṇas; for चेतुपथ and वनपथ, 600 paṇas; for ग्राम्य and ग्राम्पथ, 200 paṇas; for द्वीचन्यथ, 500 paṇas; for खानीयपथ, राष्ट्रपथ and विकीतपथ, 1000 paṇas; for digging the roads too deep, four times the above fines were inflicted.

We now proceed to give an account of the

¹ मस्त्राचिरसप्रिषयः, वीवधासारप्रसारवधय—Bk. XII, p. 388.

² वास्विक्रय:-Bk. III, p. 169.

[&]quot; अच्छाराजायां सुवर्णाध्यत्त:--Bk. II, p. 85.

⁴ विवीतचेत्रपथस्तिमा-Bk. III, p. 171.

various types of vehicles, conveyances and other means of land carriage which were then in use. First come chariots, the construction of which was placed under the supervision of the superintendent of chariots (रवाधव), who had to see that the chariots built corresponded with the various sizes and types in vogue; for there are mentioned no less than seven different sizes of chariots with a normal height of 10 purushas, i.e. 10 feet, but with a width ranging from 6 to 12 feet. There are also mentioned six varieties of chariots for different purposes. Thus the देवर्थ was the chariot for the idols. the अव्यय was the festal chariot, the चांप्रामिक war-chariot, the पारियानिक that used ordinarily for travelling. There was another of war-chariots called the परप्राणियानिक for use in expeditions. Lastly, there was the वेनियक or the chariot used in the period of training.1

Among minor vehicles we have the ज्युगानम्, a small cart; the गोचिक्रम्, a cart of medium size drawn by bulls; and the मनट or big cart.

¹ रथाभ्यत्त:--Bk. II.

² चुड़पग्राभैनुष्यस् सभारो सावतं द्यात्; पश्च स्धृशानस्, वड्-गोलिङम्, सप्त स्तटम्—Bk. II, नावधाच:, p. 127.

The carts were in very general use, and a brisk trade in them was carried on to meet the demand.1

The chariots, carts² and other vehicles were usually drawn by camels, bulls or horses. The cart-driver was called चक्रचर.8

Lastly, the मिनिका or palanquin was also a means of conveyance, पीरिका being another variety of the same.

As regards the king's conveyance, great precautions were taken to ensure his personal safety when he rode a horse, etc., or was carried in a chariot or other vehicle. Hereditary grooms and drivers were generally appointed, and stringent punishments meted out to those who stole or caused hurt to royal

¹ धान्यरसलोचपणाः म्कटयवदारिणच निंगत्कराः-Bk. V, कोशाभिसं चरणम्, p. 241.

[ं] गवाश्व-रथोष्ट्राणां च वक:-Bk. VII, चीनशक्तिपूरणम्। युगवास्त्रम् कटवसा ष्टबभा:-Bk. II, गोध्यसः । कुर्याद्गवास्त्या-योगं रचेष्वस्पन्नयो नृप:-Bk. X, युद्धभूमयः, पत्यत्ररचन्नसिवनमेषि ₹, p. 869.

[ै] चक्रचराणां वा श्वट-वार्ट-रपगच्छेत्-Bk. VII, सन्धिवन्धी, सन्धिमोचच, p. 815.

⁴ क् बभुङ्गार्यजनशिविकापीठिकार्येषु च विशेषार्थम्—Bk. II, गणिकाध्यच:, p. 128.

horses and elephants, and damage to royal carriages.¹

There were rules for the driving of vehicles to ensure the security of the passers-by. I need not, however, enter into these details. Cart-stealing was severely punished. Special care was taken for repairing the roads, and favour was shown to the labourers by exempting them from taxes.

I conclude this account of land routes and conveyances by a reference to the facilities for travelling that were offered by the State. The supply of water and shade was one of the concerns of Government. Trees were planted along the roads, and water-storages were set up, ministering to the comfort of passers-by. There was also provision made by hotel-

[ा] सीलपुरषाधिष्ठितं यानवादनमारोचेत्—Bk. I, चातारचित-कम्; (पिष्य) राजच्छायश्वरणानां चिंसकान् सोनान्या प्रकानारो-च्येयु:—Bk. IV, प्राइस्विच्स दण्डकलाः, p. 227.

² Vide Bk. IV, खतिचारद्षः।

³ चक्रयुक्तं नावं चुद्रपद्धं यापहरत एकपाद्वधः विश्वतो वा इण्डः—Bk. IV, एका क्रवधनिकायः, p. 225.

^{&#}x27; शोधयेत् पद्मास्य चीयमानं विषक्षयं—Bk. II, जनपद्-निवेश:, p. 49; मध्यमवरं वा दुर्गेसेतुक्तमेविषक्षथप्रस्त्रानिविश-खनिद्वयस्स्तिवनकर्मीपकारियं प्रत्यन्तमस्यप्रमायं वा न यासेत— Bk. V, कोशाभिसंस्रणम्, p. 240.

keepers for the supply of food and restingplace to travellers. These facilities anticipated those of Asoka as set forth in his Rock Edict II.

§ 2.—WATERWAYS AND SHIPS AND BOATS.

From the above it appears that the vast territories over which Chandra Gupta held sway were interconnected by a system of communications, which was one of the chief means of welding them together into one mighty empire governed from its centre at Pâțaliputra. The means of communication thus established had, as I have already said, not merely a political significance; they helped to create and carry a large volume of inland trade which was equally instrumental in uniting the different parts of the empire in ties of common material interests.

The system of communications, however,

[े] तुत्त्रशिक्षपुंच्यतीप्रापाविक-कथावकाश्रभोजनदात्तिः च्यप-सर्पयेत्—Bk. IV, वाक्यकर्मान्योगः, p. 219.

सहोदनं चाहार्योदनं ना सेतुं नन्धरेत्। चन्येषां ना नभ्रतां भूमिमार्ग-ष्टचोपकरणानुम्हं क्रुपेत् पुष्पस्थानारामाणां च सभूय सेतु बन्धदप्रकामतः कर्माकरवलीवदाः कर्माकुर्युः—Bk. II, जन-पद्निवेगः, p. 47; पुष्पफल्लवाटषण्डकेदारमू खनापास्तेतुः—Bk. II, समाहर्भुससुद्यप्रस्थापनम्, p. 60.

could not be complete without the means of water-carriage, which in India, pre-eminently the land of rivers, were imperatively necessary. That these were fairly developed is quite evident from the Arthasastra; in fact, all matters relating to navigation, whether inland or oceanic, were dealt with by a separate admiralty department managed by various officers.

There were several classes of water routes: first, the ordinary river routes and the artificial waterways or canals (क्र्या) which were greatly resorted to by traders on account of the undoubted cheapness of water-carriage. Kautilya, however, shows his preference for land routes over water routes on account of the lesser risks involved in the former. Secondly, there were the routes for coastal traffic (क्रथप)

¹ एतेन विषिक् पथोव्याखातः। तवापि—"वारिस्वलपथयोर्था-रिपथः त्रेयान् स्वस्वव्यव्यायामः प्रभूतपप्णोद्यस् " रत्याचार्याः। नेति कौटिखः—" संद्रमित्रसर्वनालिकः प्रक्रष्टमययोनिनिष्ठ-तिकारस्य वारिपथः; विपरीतस्वलपथः। वारिपथे तु क्रूस-संयानपथ्योः क्रूलपथः पष्पपृष्ठवाङ्गस्याच्द्रेयाद्वरीपथो वा सात-त्याद्विषद्वावाधलास् "।—Bk. VII, कर्मासन्धः, p. 298.

कौटिन्सः---" वारिक्स समयभोगयोरिनित्यो वारिपयभोगो, नि-त्यक्स समयभोग द्ति"।--Bk. VII, चनवसितसन्धः, p. 294.

carrying on inter-portal communication. These were naturally more exposed to dangers than either the river routes or the land routes. Lastly, there were ocean routes (संवानपय) carrying on the intercourse of India with foreign countries across the sea. The existence of definite ocean routes, clearly marked out, no doubt implies a high degree of development of the art of navigation.

The natural risks of water-carriage were, however, overcome by the efficiency of the means of transport that were in use. Ships and boats were built of various descriptions suiting the purposes of both inland and marine navigation. In the Arthasastra mention is made of the following kinds of ships and boats:-

- (i) चंयात्यः नावः, i.e. ocean-going vessels. These ships had to pay tolls () at the harbours (चेच) at which they touched.1 Amarakosha defines a सांयाचिक as a merchantman (पोतनिषक).
- (ii) प्रवच्यः This is another name for seagoing vessels, or more properly merchantmen, for it is thus defined in the commentary on

¹ संघातीनीयः चेत्रानुगताः ग्रास्कं याचेत । -Bk. II, नावधवः, p. 126.

उत्तराध्यमस्त्रचटीका, p. 246: चामुद्रिकाः व्यापारिषः महासमुद्रं प्रवहणेखराना, i.e. "sea-going merchants cross the main in प्रवहण."

(iii) सङ्ग्रह्मापादिषः नावः These were the boats used for pearl-fishing in various parts of the ocean. They were generally the property of Government, but were also let out to private individuals on payment of the necessary fee (नीचाटक). But pearl-fishers were also allowed to carry on their business in their own boats (सनावः).2

- (iv) मचानायः These were big vessels for use in those large rivers (मचानदीषु) which could not be forded even in the dry seasons and were navigable throughout the year.3
- (v) The royal barge was another type of boat, manned by trustworthy sailors (आमना-विकाधिकितः नोः). It had to be tagged on to another boat, evidently for the safety of the king. The king never used a vessel that had

¹ प्रवच्च निमित्तमेकोश्मात्यः सर्वाममात्यामावाच्चेत् । —Bk. I, उपधासि-स्सीचासीचचानममात्यामाम्, p. 17.

शक्क्षुक्षाप्राचिको नीचाटकान् द्यु, सनीभिको तरेयु: ।
 (नावध्यक्षः) ।

³ मचानावो देमनाप्रीयातार्थासु मचानदीवुप्रयोजयेत्।—Ibid.

once been weather-beaten, and, as a further precautionary measure, soldiers were stationed on the bank or shore when he boarded a vessel.¹

- (vi) चुड़काः नावः These were small boats specially meant for use in small and shallow rivers (चुड़िकान्द्र) that overflowed in the rains.2
- (vii) सनरपानि Besides the Government ferryboats, there were also ferry-boats belonging to private persons. These were allowed to cross the rivers at all times and places.⁸
- (viii) चिकाः These were the pirate ships and boats. The admiralty regulation was that they should be pursued and destroyed whenever they were found. The same regulation applied to the ships and boats of an enemy's country when they crossed its limits (चिनचिय-पातिकाः) and also to vessels violating harbour rules (पच्चपनचारिनोपपातिकाः).

[ं] नावं आप्तनाविकाधिष्ठितासन्यनीप्रतिवद्धां (आरोचेत्); बातवेगवशां च नोपेशात्। अदकान्ते सैन्यमासीतः। —Bk. I, आत्मरचितकस, p. 44.

² चुड़काः (मावः) चुड़िकासु वर्षाचाविष्णिषु ।—(नावधचः) ।

³ Ibid.

^{&#}x27; श्विं शिका निर्धातयेत्। श्विनिविषयातिगाः पण्यपत्तनचारि-नोपशातिकाश्च—(नावधचः)।

A reference has now to be made to the crew for manning ships and boats. The captain of a ship was called the मामक, and the steersman the नियामक. There were also the sailors, with sickles and ropes, known as दानरिम्मपादकाः. Lastly, there was a staff of sailors whose duty it was to bale out water (जन्मे चकाः).1

Besides the regular ships and boats, there were devised various other means of water-carriage. These were (a) काष्ठवृत्त—pieces of timber tied together, serving the purposes of a boat; (b) वेण्डवृत्त—a boat made of bamboos tied together; (c) च्यान—a vessel made of the bottle-gourd; (d) च्यान—a vessel made of the bottle-gourd; (d) च्यान—a basket covered with skin; (e) च्यान—a leather bag that could be floated and used as a boat; (f) भन—canoe; (g) गण्डिका—a floating device made of the leather of the rhinoceros; (h) विचित्ता—a float of reeds, etc., woven together.²

Other means² of crossing water were the bridges of various kinds. Besides the ordinary

¹ Vide नावध्यत्त:. Cf. the list of crew as given by असरकोष:
--- "कर्षधारस्नाविक: नियासका: पोतवासा:।"

² इसिस्त अपक्रुमसे तुव अनीकाष्ठ वेणु सङ्घातीः व्यसाव वर्माक -रण्ड इसिम्नवगण्डिका वेणिकाभियोदकानि तार्थेत् —Bk, X, स्क्रमा-

bridges (चेत्रका) there were also the bridges of boats as well as the bridges formed by elephants standing in a row.

In the chapter नावधनः there are a few rules relating to the duties of the नावधन (the superintendent of the admiralty department), of the बन्ध्यन (the superintendent of oceanmines) and of the प्रमाधन (the superintendent of ports). There are also mentioned the regulations as to the collection of taxes and ferry charges (गरदेश), repair of ships and boats, time and place for crossing rivers, entrance of foreign merchants into the country, arrest of suspected persons, and concessions made to some classes of persons as regards crossing and ferry fees, e.g. children, old men, etc.

वारप्रयाणम्, p. 868; वर्षाराचमनूपपामाः पूरवेलामृत्स्च्य वसेयुः। काष्ठवेणुनावसापग्रह्मीयुः—Bk. IV, अपनिपातप्रतीकारः p. 206.

ज्ञामानमञ्जात्क्रिक्षवगण्डिकाविणिकाभिञ्चारयेयः। अनिभस-रतां द्वादशपणो दण्डः, अन्यन अवन्तीनेभ्यः।—Bk. IV, जपनि-पातप्रतीकारः, p. 206.

नदीदुर्गे चि चिसिसामाधङ्कामसे तुष्वन्थनौभिस्साध्यमनित्यगामीर्थ-मपसायादकं च—Bk. VII, भूमिसन्थिः, p. 292.

शिविरमार्गचे तुकूपतीर्थशोधनकर्मायन्त्रायुधावरणोपकरण्यास -वचनमायोधनाच प्रचरणावरणप्रतिविद्वापनयनसिति विष्टि-कर्माणि—Bk. X, पत्यचरथऋसिकर्माणिच, p. 869.

Besides these, there were a few other rules regarding deposits in ships, the rate of interest for money lent or borrowed by sea traders (जानुहाः) and the punishment for stealing boats.

It is apparent from the above that intercourse was established in that ancient time between the empire of Chandra Gupta and very distant places. That foreign merchants used to come to his empire and that commerce was carried on with distant countries are evident from references made to them in several passages under the names of पार्विचिका: 2, सामुद्रा:, 3 सार्थेशनपाचानि, 4 and also by the use of such expressions as "देशकाजाचित्तानां तु पण्यानां," b

[ा] नाविनिसम्मायां सुषितायां खयसुपक्दों नोपनिधिसभ्याभवेतः —Bk. III, चौपनिधिकस्, p. 177; विंग्रतिपणा सासुद्राणां। ततः परं कर्तुः कारियतुस पूर्वसास्त्रस्यः—Bk. III, ऋणा-दानस्, p. 174; नाविकसार्थवासेश्यस्य परिचारसायति समंद्रात्। सनिभयोगसार्थे व्यागसूनासन्य सभ्योपकारिश्यः—Bk.II, पद्माधासः, p. 98.

चक्रयुत्तं नावं चुद्रपद्भां वाध्यद्वरत ऐक्रपाद्वधः चिश्रतो वा दण्डः—Bk. IV, एकाङ्गवधनिष्कयः, p. 225.

² Vide गावधाच: ।

³ Bk. III, ऋणादानम्।

⁴ Bk. I, श्वयरद्वष्टममवरदे स एमि: ।

⁵ Bk. IV, वैदेशक-रचणम्; see also पणाध्यश:—Bk. II; कर्मा-सन्धि:—Bk. VII, etc.

etc. Lastly, in the chapter entitled को अप्रवेश-रत्नपरीचा in Book II, among other things it is mentioned that काजेबक, a kind of sandal, came from सर्वभूषि, i.e. Burma; चीनभूषिजा: चीनपदा:, fabrics of Chinese manufacture, came from that distant country; and gems of various kinds, as well as चगर (the fragrant Aloe-wood) of several sorts, came from Ceylon (पारचन्नद).¹ There are mentioned many other names of distant countries the products of which were brought into the empire by the means of intercourse that were established, but those already quoted are sufficient for our purpose.

¹ Mr. N. L. Dey has very rightly restored the word Palæsimundu of the Periplus of the Erythraun Sea to its proper form as Pārasamudra (प्रसुप्र) in the second edition of his Geographical Dictionary of Ancient and Mediaval India, the manuscript of which he has kindly allowed me to consult. His restoration of the word is confirmed by Bhaṭṭasvāmi's Commentary, which says that the fragrant Aloe-wood, called Pārasāmudraka after the place where it grows, is obtained in Sinhala (Ceylon).

CHAPTER VI.

MINOR WORKS OF PUBLIC UTILITY.

In the previous chapters has been described the field of activity covered by some of the major works of public utility. In the present, an account will be given of some of the minor measures that were adopted, and the institutions that were established, for the promotion of the welfare of the people in certain special directions. These, roughly speaking, were connected with the relief and alleviation of sickness, poverty and distress, as well as with the patronage and encouragement of merit.

MEDICAL AIDS, SANITATION, ETC.

It is well known that in ancient India, as far back as the age of Buddha, much progress was made in medicine and surgery, which were fast being applied to the relief of human

suffering. "According to the Indian tradition preserved in the Buddhist Jâtakas or Folklore, there existed in India in the age of Buddha two great universities or seats of learning, in which 'all sciences,' including medicine, were taught by 'professors of world-wide renown.' These two universities were Kasi or Benares in the east, and the still more famous Takshasilâ or Taxila (on the Jhelam river) in the west. In the latter university in the time of Buddha or shortly before it, the leading professor of medicine was Atreva. He, accordingly, should have flourished at some time in the sixth century B.C. As one of the names of Susruta's teacher is Kâsîrâja, which literally means King of Kâsî, he may not unreasonably have referred to the University of Kasa or Benares." 1 Jîvaka, the famous physician who was contemporaneous with Buddha, is stated to have studied medicine in the Taxila university under Âtreya.2 The Vinaya Piṭakas also give us some information on this point.3 "Rules for preparing various kinds of medica-

¹ Hoemle's Studies in the Medicine of Ancient India, pp. 7, 8.

² Rockhill's Life of Buddha, p. 65.

³ Vinaya Piṭakas: Mahavagga VI, 1-15 and 17-21.

ments, as well as medical and surgical operations," says Prof. Kern, "are prescribed in the Vinaya, so that we get some notion of the condition of medical science in the period when that part of the canon was composed."1 From these evidences, which are sufficient for the present purpose, we get an idea of the state of Indian medical science as far back as the time of Buddha, or even before it, and the advancement it attained in medicine and surgery. The degree of progress achieved in Chandra Gupta's time will be evident from the measures adopted by his Government to secure the health of his people. We learn from Megasthenes² that of the six bodies that were in charge of the city, one had "to attend to the entertainment of foreigners. . . . They took care of them when they were sick, and if they died buried them." Thus the care and treatment of the sick foreigners formed one of the duties of Government. This shows that physicians, with medicines and appliances, had to be kept in readiness to meet the emergencies. Arrian, moreover, refers to an

¹ Kern's Manual of Indian Buddhism, p. 85.

² Megasthenes, Bk. III, Fragment xxxiv.

interesting incident which reflects no small credit on the Indian physicians of the day. Alexander had in his train several proficient Greek physicians, but they confessed their inability to deal with the cases of snake-bite very common in the Punjab. Alexander was obliged to consult the Indian Vaidyas, who successfully treated these cases. The Macedonian king was so struck with their skill that, according to Nearchos, he employed some good Vaidyas, and ordered his followers to consult them in cases of snake-bite and other dangerous ailments.

That there were hospitals with store-rooms (भेषचागार) containing medicines in such large quantities as could not be exhausted by years of use, is evident from the passages in the Arthasastra quoted below.¹ To the old store fresh supplies were constantly added.

In the Arthasastra there are references to four classes of medical experts, viz. भिषकः or चिकित्मकाः, i.e. ordinary physicians; जाक्कीविदः,

¹ उत्तरपिश्वनं भागं पण्णभैषक्यग्रहम्।—Bk. II, दुर्गैनिवेश:, p. 55; सर्पक्षेत्रभाग्यचारस्वयभैषक्य . . . निचयान् क्यनेकवर्षो-पभोगस्हान् कारयेत्। नवेनानवं शोधयेत्—Ibid., p. 56. See also p. 44, Bk. I, श्रात्मरचितकम्।

i.e. those who could readily detect poison; गर्भवाधिसंखाः or स्कृतिकाचिकित्सकाः, i.e. midwives; and army surgeons and nurses.1

The army surgeons with surgical instruments (मक) and appliances (यन्त्र), remedial oils (यगद्वेष) and bandages (यम्त्र), and nurses with appropriate food and beverage, accompanied the army, and encouraged the soldiers.² For the treatment of the diseases of animals, there were the veterinary surgeons referred to in the previous chapters on the subject of live stock.

Several steps were taken for the plantation and growth of medicinal plants and herbs. Portions of fields cultivated directly under Government supervision were set apart and used for this purpose. These herbs were also grown in pots.⁸

Again, in the royal households, all kinds of

[ा] भिषज: and जाजलीविद:—Bk. I, चात्मरचितकम्, p. 48; गर्भवाधिसंखा:—Bk. I, निशानप्रणिधः, p. 41; स्त्रतिकाचि-कित्सका:—Bk. II, नागरकप्रणिधः, p. 146.

² चिकित्सकाः म्राचन्नागद्के इवस्त्रस्ताः स्थियसान्नपानरिचन्य-पुरवाणामुद्वपंणीया प्रष्ठतस्तिष्ठेयुः ।—Bk. X, क्रूटयुद्धविकस्पाः, etc., p. 867.

⁸ Bk. II, सीताध्यच:, p. 117.

medicines useful in midwifery were kept, and the well-known medicinal herbs were grown in pots. Specified plants were also planted in the compounds of houses to ward off snakes. Cats, peacocks, mungooses and spotted deer were also kept there for the purpose. The shriek of birds such as mainâ, parrot, etc., which cry out in the vicinity of snake poison, was utilized. The following birds were also kept for their sensitiveness to poison, viz., the heron that swooned, the cuckoo that fell dead, and the partridge that reddened the eyes at the smell of poison.¹

The State controlled and regulated medical practice in the land.² Laws were enacted to ensure that medical practitioners exercised due caution in treatment of patients. Every case of dangerous disease had to be reported to Government, failing which, the physician was fined. There was a penalty attaching to a proved case of carelessness on the part of a physician causing the death of a patient, while the aggravation of disease owing to his negligence was treated very much like a case of

¹ Bk. I. निशान्तप्रणिधि: ।

² Bk. IV, कारकरचणम्।

assault or violence. Thus the physicians were cautioned against "gathering experience" at the cost of the lives of hundreds of patients.

Measures were also taken for prevention of diseases. Thus, adulteration of all kinds was punished, e.g. adulteration of grains, oils, alkalies, salts, scents and medicines.2 The health of the people in cities or crowded places was secured by sanitary measures. Throwing dirt, or causing mire or water to collect in roads and highways was punishable. Committing nuisance near temples, royal buildings and places of pilgrimage, or in reservoirs of water, was penalized, but exceptions were made when this was due to disease or effect of medicine. Throwing inside the city the carcases of animals, or human corpses, was also visited with fines. Carrying dead bodies through gates or along paths not meant for the purpose, as well as the interring or cremation

¹ Cf. S. B. E., Vishnu, v, 175-177; Yājñavalkya, II, 242; and Manu, IX, 284—"All physicians who treat their patients wrongly shall pay a fine: in the case of animals, the first or lowest, and in the case of human beings the middlemost americant." Nārada adds: "But this refers to cases when death is not the result of the wrong treatment; for if that is the case, the punishment is greater."

² Bk. IV, वैदेखकर्चाष्म ।

of dead bodies beyond the limits of the prescribed burial-places and crematories, was also a violation of the sanitary regulations.¹

Remedial measures, medical as well as religious, were adopted to ward off pestilences. In times of epidemic, physicians had to be busy distributing medicines, and ascetics and priests with their auspicious and purificatory ceremonials.²

The precautions taken for the health of the king were as follows:—Medical experts were appointed to detect poison. The medicines that were served out to the king were in the first instance proved as to their purity and then tasted by the physician, the decoctioner (पाचक) and the purveyor together.³

Post-mortem examination (আয়নুবক্দবীৰা).—It is noteworthy that there was arrangement in those days for post-mortem examination.⁴ For this purpose the corpse was smeared with oil to prevent putrefaction. All cases of violent death caused, for instance, by suffoca-

¹ Bk. II, नागरकप्रविधिः।

² Bk. IV, उपनिपातप्रतीकार: ।

³ Bk. I, स्थातारचितकम्।

⁴ Bk. IV, **चाश्**मृतकपरीचा।

tion, hanging, drowning, etc., or by poisoning, were at once brought to the morgue, and the medical officers in charge had to find out as far as possible the exact cause of death from an examination of the symptoms, several of which are enumerated in the Arthasastra. The whole affair was subjected to a careful scrutiny, and if foul play was suspected, evidence was taken and the matter left to be disposed of in the law court.

Before we leave this subject it should be noted that the University of Takshasilâ, where Pâṇini and Jîvaka were taught, must have continued to exist in its pristine glory at the time of Chandra Gupta, teaching the medical science which was included in its curriculum as before. Arrian describes Takshasilâ as "a large and wealthy city and the most populous between the Indus and the Hydaspes." Pliny and Strabo also testify to its vast dimension and populousness. Its high repute as a wealthy city continued for many years after Alexander's invasion, and its importance may be deduced from the fact that it continued to be the

¹ Cunningham's Archæological Survey Report, vol. ii, pp. 112, 118.

capital of the Punjab and residence of the viceroys under the early Maurya kings. Asoka lived here as viceroy during the lifetime of his These circumstances, as also the fact that we do not hear of any other university in Western India at the time of Chandra Gupta, confirm the aforesaid view. Though it is not distinctly stated in the Atthakatha, as quoted by Turnour in his Mahawanso, that Kautilya, the minister of Chandra Gupta, was taught in the University of Takshasila, yet, considering that he was an inhabitant of that town and that he achieved the knowledge of the three Vedas, could rehearse the Mantras and wrote several treatises on diverse subjects, we cannot resist the inference that he must have availed himself of the advantages which the university of his own town, so famous for its teaching in all the branches of learning, could afford.

INSURANCE AGAINST FAMINE, FLOOD AND FIRE.

We shall now turn to the measures taken for protecting the people against the ravages of famine, flood, fire, etc.

¹ Introduction, p. xxxix.

As a general preventive against famine and other such calamities, it was laid down that in the Government store-house only half of the garnered articles should be used and the other half reserved.¹

The king had also special duties to perform towards his people during famine. In the first place, he had to provide them with seeds to secure a good harvest in future. When the famine had already overtaken the people, he started relief work (i) by द्वांतकर्म, i.e. works given to the famine-stricken for wage-earning, (ii) by free distribution of alms from the store-house referred to above. (iii) by the abandonment of his country to some other king (देशनिचेप), (iv) by taking help from allies, (v) by making the rich contribute to the famine fund, (vi) by temporary emigration with his subjects to a different kingdom with abundance of crops, (vii) by emigrating to the sea-shores or to the banks of rivers or lakes where he founded a new settlement and employed his subjects in growing grains, vegetables, etc., as

¹ Bk. II, कोष्ठागाराध्यकःः।

well as in hunting and fishing on a large scale.1

As a precautionary measure against floods during the rainy season, the people were made to remove from the banks of rivers, etc., in due time. Those who possessed or could procure canoes and other means of safety and escape were enjoined, under the penalty of fines, to give every possible help to persons falling victims to floods in spite of all precautions. Coupled with the above means was the performance of religious and other ceremonials to propitiate the spirits and the gods.²

Measures for the extermination of pests were also taken by Government. These "pests" generally included rats, locusts, injurious birds and insects, and tigers. To destroy rats, cats and mungooses were let loose; some varieties of poison were also used for the purpose. To kill tigers, several kinds of

[े] दुर्भिचे राजा बीजभक्तोपग्ट इं छला हनुग इं कुर्यात्। दुर्गत-कर्मा वा भक्तानुग देण भक्त एं विभागं वा देश निचे पं वा। मिचाणि वा स्थापत्र । कर्मनं वमनं वा कुर्यात्। निष्ण इसस्य स्थाव वर्षे वा सजनपदी यायात्। समुद्रसरस्य हातानि वा संत्रयेत्। धान्य-स्थाकमू खफ खावापान् से तुषु कुर्व्योत्। मृगप ग्राव्याल सत्यार सान् वा।—Bk. IV, जपनिपातप्रतीकारः, p. 207.

² Bk. IV., जपनिपातप्रतीकारः।

poison were in use; sometimes hunters were employed, and several methods of entrapping were also resorted to.¹

There were various regulations to protect person and property from fire. The danger from fire seems to have been very common, considering the material of which the buildings of the period were mostly constructed, viz. wood instead of stone.² Megasthenes informs us that "such cities as were situated on the banks of rivers or on the sea-coast were built of wood instead of brick, being meant to last only for a time, so destructive were the heavy rains which poured down; and the rivers also, when they overflowed their banks, inundated the plains; while those cities which stood on commanding situations and lofty eminences were built of brick and mud." It is also known, on

¹ Bk. IV, उपनिपातप्रतीकार: ।

² V. Smith's *Hist. of Fine Art*, p. 18: "Abundant evidence establishes the fact that Indian architects before the time of Asoka built their superstructures chiefly of timber, using brick almost exclusively for foundations and plinths. No deficiency in dignity or grandeur was involved by the use of the more perishable material." The present excavations at Pāṭaliputra are leading to the discovery of many wooden structures, *e.g.* pillars, platforms, etc. We are anxiously awaiting a corroboration of our views on this point by such findings.

³ Megasthenes, Bk. II, Fragment xxvi.

the authority of the same Greek ambassador, that Pâṭaliputra, the capital, was surrounded by "a wooden wall pierced with loopholes for the discharge of arrows." Wood seems to have been very extensively used in those days for building and other purposes, and therefore several precautions were taken and several rules laid down governing the use of fire.

During summer, villagers had to do their cooking in the open air, if they were not already equipped with what was called the ten remedial instruments (दशमूखीचंग्रह).2 were (i) five water-pots (पश्चवः); (ii) कुम, a water-vessel of that name; (iii) द्रोपी, which, according to Bhattasvâmî, was a water-tub made of wood and kept at the door of a house; (iv) नित्रेषी, a ladder; (v) परम, an axe to cut beams, etc.; (vi) प्रापं, a winnowing-basket to blow off smoke; (vii) www, a hook to pull down the burning pieces of wood; (viii) कप, ropes, etc.; (ix) पर्पी, a basket for removing articles from the store-room, etc.; and (x) efa, a leather bag for the same purpose as the preceding.

¹ Bk. II, Fragment xxv.

² Bk. IV, जपनिपातप्रतीकार: ।

In the city, every householder had to provide himself with the ten remedial instruments. During summer the kindling of fire was prohibited during the second and third quarters of the day. All men were enjoined, under the penalty of fines, to run to give help, in case fire broke out in any house. Thousands of vessels filled with water had to be kept in rows not only in the big roads but also at the crossings of roads and in front of royal buildings. The masters of the houses had to sleep at night in a place near the main doors of their premises, so that they might be easily accessible and come out of their houses to give help without delay. Thatched roofs made of straw and other materials that readily take fire, were not allowed within the city. Those who worked by fire, e.g. blacksmiths, had to live in a particular quarter of the city. Persons wilfully setting fire to a house were severely dealt with. If it was through negligence, only fines were imposed.1

¹ खिप्रतीकारं च पीयो मध्यमधीरऋ खतुर्भागयोः खष्टभागोशिप-द्ष्डः । विद्रिधित्रयणं वा कुर्युः । पादः पश्चघटीनां कुमाझोणी-नित्रेणीपरग्रग्रप्रपाहुग्र-कचयचणीहतीनां च खकरथे। हणकट-खुन्नान्यपनयेत । खिप्रजीविन एकसानं वासवेशुः। स्वाटक्प्र-

CH. VI.] ANCIENT HINDU POLITY 103

To propitiate Fire, offerings were made to him every day and prayers said.¹

A FEW OTHER WORKS OF PUBLIC UTILITY.

We shall now turn to a few miscellaneous works of public utility, which are not without some interest. These were:—

- (i) Jail deliveries.—To celebrate the anniversaries of the king's birthday and in commemoration of the birth of a prince, the installation of an heir-apparent, or the conquest of a new country, prisoners were set at large. Generally, on full-moon days, such prisoners as were very young, old or diseased were let out. Sometimes the prisoners were set free in consideration of their uniformly good conduct in the jail.²
- (ii) Advocacy of temperance.—Only a limited number of people was allowed to take part in

द्वारेषु ग्रह्मसामिनो वसेषुः । चसंपामिनो राचौ रथ्यासु कठन-जास्स्च तिष्ठेषुः । चतुष्ययद्वारे राजप्ररिपचेषु च । प्रदीप्त-मनभिधावतो ग्रह्मसामिनो द्वाद्यपणो द्षः । षट्पणो विक्र-यिणः । प्रमादादीप्रेषु चतुष्यभाष्यत्पणो द्षः प्रादीपिकोऽधिना वधः ।—Bk. II, नागरकप्रणिधः, p. 145.

¹ Bk. IV, उपनिपातप्रतीकारः।

² Bk. II, नागर्कप्रणिधिः।

liquor traffic, and a heavy fine was imposed on those who violated the rule. Liquor was sold only in small quantities not exceeding 1 prastha or 1½ kancha in any case. Liquor shops were not allowed to be set up close to one another, and a Brâhman who took to drinking was very severely punished.

(iii) Grant of jagirs, etc.—Brahmans performing sacrifices, spiritual guides, priests—all of them learned in the Vedas—were granted lands yielding sufficient produce and exempt from taxes. They were also given forests of soma essential to sacrifices.²

The wives and children of those officers who died while on duty received allowances. Infants and aged or diseased persons related to the deceased officers were shown favour. Under pecuniary stress, the officers were given forest produce, fields, cattle, etc., along with a small amount of money.³ Indigent widows and disabled women and girls were provided with work in the weaving depart-

¹ See सुराध्याः—Bk. II, p. 119, and वाक्यकरीनयोगः—Bk. IV, p. 220.

² Bk. II, भूमिन्डिद्रविधानम्।

³ Bk. V, भृत्यभरणीयम ।

ment of the State. Those women and girls who did not come out of their houses in strict observance of the $Pard\hat{a}$ system but were compelled by poverty to work for subsistence, had their work brought within their reach daily by women servants of the weaving-house.¹

(iv) Government seems to have kept a close watch that the claims of slaves, hirelings and dependents were not over-ridden. Elders of villages were entrusted with the duty of looking after the orphan minors in a village, and no person having wife and children was allowed to become an ascetic until he had made adequate provision for their maintenance. The State provided with maintenance the infirm and afflicted.²

¹ Bk. II, स्वाध्यत्तः ।

² Bk. II, जनपद्निवेशः।

CHAPTER VII.

THE CENSUS.

It is interesting to know that there was some form of census current in India over two thousand years ago. Megasthenes hints at this in the following extract we make from his account:—

"The third body of superintendents consists of those who inquire when and how births and deaths occur, with the view not only of levying a tax but also in order that births and deaths among both high and low may not escape the cognizance of Government." ¹

The testimony of Megasthenes is amply confirmed by the details of census and similar operations preserved in the Arthasastra. The necessity to Government of an intimate knowledge of the places and people under it goes without saying, and it is no wonder

¹ Megasthenes, Bk. III, Fragment xxxii.

that in the effective administrative organization of Chandra Gupta there was found a place for census operations, the scope and aims of which were, however, necessarily different from those of similar operations in modern times.

The distinguishing feature of Chandra Gupta's census appears to be that it was not periodical, but a permanent institution—a department of the State run by permanent officials. department was a large one, manned by several officers. The head of the department was called समाचती, i.e. collector-general, who combined in himself, besides those connected with the census, various other functions, such as collection of revenue, checking accounts, land survey, and the like. The area under his administration was in the first instance divided into four districts, and each district into a number of villages. Each district was placed under an officer (सानिक), and under him was appointed a number of subordinate village officers (गोप), whose work was supervised by their superiors, the district officers. village officer was put in charge of five or ten villages, according to the directions of the

collector-general. Besides these, inspectors (प्रदेश) were appointed for checking both the work and methods of the village and district officers. But this inspection was not enough. Over and above the inspectors, a special batch of officers was appointed by the collector-general to work as spies and "overseers" under various disguises on their own independent lines and supply information on their own account. The sphere of work of the spies was not identical with that of the village officers, for it included certain points of inquiry to which the village officers had to attend, and at the same time a few independent heads of inquiry, as will be explained below.

The functions of the village officers (excluding those in connection with the land survey) were these 2:—To number the inhabit-

¹ समाइता चतुर्था जनपदं विभव्य व्येष्ठ-सध्यम-किनष्ठ-वि-भागेन प्रामापं परिदारकमायुषीयं धान्यपद्मादिर प्रकृष्यविष्टिकर-प्रतिकरिसद्मे ताविदिति निवन्धयेत्। तस्प्रदिष्टः पश्चप्रामी दश-प्रामी वा गोपिश्चन्येत्। एवं च जनपद्चतुर्भागं ख्यानिकः श्विन्येत्। गोपस्थानिक-स्थानेषु प्रदेष्टारः कार्योकरणं विस्तप्रपृषं च कुर्युः।—Bk. II, समादतृप्रचारः, pp. 141, 142.

² तेषु चैतावचातुर्वर्णमेतावनाः कर्षक-गोरचक-वैदेचकादकर्म-

ants of all the four castes in each village; to count the cultivators, cowherds, merchants, artisans, slaves, the young and old men and women of each house, and ascertain their character (चरिन), occupation (कर्म), income (चानीन) and expenditure (चन)¹; to number the biped and quadruped animals in each house, the taxpaying and non-taxpaying houses, and determine the amounts of gold, free labour, tolls and fines collected from each house.

The functions of the spies, besides their duties in connexion with land survey and revenue collection, were 2:—To number the total of inhabitants in each village, to number the houses and families in it, to ascertain the caste and profession of each family;

करदासासीतावच दिपदचतुष्यदिनदं चैष सिर्ण्य-विष्टि-श्रुत्क-द्ष्यसामुक्तिष्ठतीति ।

स्टाणां च करदाकरदसङ्ख्यानेन।

[—]Bk. II, समासर्गुप्रचारः, p. 142.

[ं] कुलानां च कीपुरवाणां बालटइकर्माचरिंचाजीवयय परि-माणं विद्यात्।—Ibid.

^{&#}x27; समास्तृंप्रदिष्टास ग्रन्थितिक यञ्जना येषु प्रामेषु प्रणिहिता-सेषां प्रामाणां सेनग्रस्कुलागं विद्युः । मानसञ्जाताभ्यां चेनाणि, भोगपरिचाराभ्यां ग्रन्थाणि वर्ण-कर्मभ्यां कुलाणि च । तेषां कङ्गागं सायययी च विद्युः ।—Ibid.

to determine which house was tax-free; to determine the occupiers of houses; to ascertain the income and expenditure of each family; to count the number of domesticated animals (লন্ধাৰ) of each house. It will be seen that these points of inquiry are in common with those of the village officers; over and above these, there were a few independent heads of inquiry,1 viz. to find out the causes of emigration and immigration, to ascertain the number of men arriving and departing, and to watch the movements of men and women of suspicious character. should be remarked that they had to perform the above duties under the guise of householders (ग्टचपिकवञ्चनाः). Disguised as ascetics (नापपवञ्चनाः), they watched the movement of cultivators, cowherds, merchants, and superintendents of Government departments.2 Sometimes, also, under the guise of thieves (चोरवञ्चन), the spies, with their followers, frequented places of pilgrimage,

¹ प्रस्थितागतानां च प्रवासावासकारणसनर्थानां च स्त्रीपुरुषाणां चारप्रचारं च विद्यः ।—Ibid.

² एवं समास्तृप्रदिष्टासापसवञ्चनाः कर्षकगोरसकवैदेसकानाम-धन्नाणां च गोसागीसं विद्याः ।—समस्त्रप्रसारः, p. 148.

CH. VII.] ANCIENT HINDU POLITY 111

bathing-places, deserted tracts, mountains, ancient ruins, etc., to detect thieves, enemies and wicked persons.

The census of cities and the metropolis was the work of departments under officers called नागरक.² Every city had its नागरक, and was, like the province, divided into four quarters, each administered by an officer known as स्थानिक. Under him worked the minor officers called Gopas (गोप), who had to keep the account of ten, twenty, or forty households as the case might be. They had not only to ascertain the caste, gotra, name and occupation of both men and women of those households, but also to ascertain their income and expenditure. To minimize the difficulty of keeping account of travellers and other non-residents,³ managers of charitable institutions were required to send

¹ पुराण - चोरवञ्चनाञ्चानेवासिनञ्चैत्य-चतुष्यथ - ग्रून्यापदोद -पान-नदी-निपानतीर्थायतनात्रमारण-ग्रेश्ववनगन्दने वुस्नेनामिज-प्रवीरपुरवाणां च प्रवेशनस्थानगमनप्रयोजनान्युपस्रोरन्—Ibid.

² समाहतृंबद्यागरको नगरं चिक्ययेत्। दशकुली गोपो, विंश-तिकुली चित्रारिशत् कुली वा। स तस्यां स्तीपुरवाणां जाति-गोचनामककांभिः जङ्गायमायवयौ च विद्यात्। एवं दुर्जचतुर्भागं स्थानिकस्थिक्ययेत्।—Bk. II, नागरकप्रणिधिः, pp. 148, 144.

⁸ धर्मावस्थिनः पाषण्डि-पश्चिकानावेद्यवास्येयुः ।—Ibid., p. 144.

information to the census offices in case any such person arrived to reside therein. Masters of households were also similarly required to send reports of the arrival and departure of strangers. If they failed to make such reports they were fined. Merchants, artisans, physicians, etc., had also, under the city rules, to make reports to the officer in charge of the capital regarding people violating the laws of commerce, sanitation, etc., for better management of the city affairs; but as these fall outside the scope of the census, we need not take note of them.

It has been already pointed out that the work of land survey was entrusted to those very officers who conducted the census operations. The duties of the officers in regard to land survey were mainly those of setting and fixing the boundaries of villages, classification and numbering of plots of land as cultivated and uncultivated, plain and upland, wet and dry, and so forth. An account was also kept of gardens and forests, temples and places of

¹ प्रिश्चितागरी च निवेदयेत्। चन्यया रावदोणं भजेत्। चेम-राजिषु विषषं द्यात्।—Ibid.

CH. VII.] ANCIENT HINDU POLITY 113

pilgrimage, feeding-houses, irrigation works, roads and crematories, storages for travellers, and pastures.¹ The supplementary body of officers or "overseers" had also to examine the accounts of this department regarding the fields, houses and families of such villages.

In conclusion, a few words should be said in regard to the scope and aims of the census operations in ancient India. The necessity of them appears to have rested on political as well as economic grounds. Politically, they were of great advantage to a Government like Chandra Gupta's, surrounded as he was by quite a number of independent hostile kingdoms. The census system kept him and his officers fully informed of those facts that were necessary for the security of the empire. We find it laid down as one of the duties of the census officials that they should watch the movements of suspicious people, of foreign spies, the emigration and immigration of men

¹ सीमावरोधेन प्रामापं शहाश्वर-ख्युकेदारारामष्यः-वाट-वन-वासु-चैत्यदेवग्टर-सेतुवन्यभाषानस्व-प्रपापुष्यस्थानविवीतप्यि-सङ्ख्यानेन चेवापं; तेन सीमां चेवाणां च मर्यादारण्य-प्य-प्रमाण सम्प्रदान विक्रयानुग्रस्परिहारनिवन्थान् कारयेत्।

and women of doubtful characters, and ascertain the causes thereof. These are facts of which an accurate knowledge is indispensable for the security of the State.

The census helped them politically in another way. We see in a passage, already quoted in another connexion, that villages were classified not only as of first, middle, and lowest rank, but also as those that were free from taxation (परिचारक), those that supplied soldiers (चायुकीय), those that paid taxes in grains, cattle, gold, forest produce (क्रम्य), etc., and those that supplied free labour (विच्छ); so that the census was of help to Government by supplying information as to which villages formed the most convenient recruiting grounds for the imperial army.

Economically, the importance of the classification of villages and of the information as to the occupations of the people, their income and expenditure, etc., goes without saying, forming as it did a valuable aid to taxation and a most

[ा] समार्चता ज्येष्ठ-मध्यम-किन्छ-विमागेन ग्रामार्ग परिचारक-मायुषीयं भान्यपद्माचिरणाकुष्यविष्टिकरप्रतिकरिमद्मेतायिद्ति निवन्धयेत्।——(समाचर्नप्रचारः)।

CH. VII.1 ANCIENT HINDU POLITY 115

reliable index to the material condition of the people.1

- ¹ The *Encyclopædia Britannica*, vol. v, p. 662 (New Edition), gives the following account of census operations of a few other countries in ancient times:—
- " The fighting strength of the Children of Israel at the Exodus was ascertained by a count of all males of twenty years old and upwards, made by enumerators appointed for each clan. The Levites, who were exempted from military duties, were separately enumerated from the age of thirty upwards, and a similar process was ordained subsequently by Solomon, in order to distribute among them the functions assigned to the priestly body in connection with the Temple. The census unwillingly carried out by Joab at the behest of David related exclusively to the fighting men of the community, and the dire consequences ascribed to it were quoted in reprobation of such inquiries as late as the middle of the eighteenth century. It appears, too, that a register of the population of each clan was kept during the Babylonian Captivity, and its totals were published on their return to Jerusalem. In the Persian Empire there was apparently some method in force by which the resources of each province were ascertained for the purpose of fixing the tribute. In China, moreover, an enumeration of somewhat the same nature was an ancient institution in connection with the provincial revenues and military liabilities. In Egypt, Amasis had the occupation of each individual annually registered, nominally to aid the official supervision of morals by discouraging disreputable means of subsistence; and this ordinance, according to Herodotus, was introduced by Solon into the Athenian scheme of administration, where it developed later into an electoral record.
- "It was in Rome, however, that the system from which the name of the inquiry is derived was first established upon a regular footing. The original census was ascribed to Servius Tullius, and in the constitution which goes by his name it was decreed that every fifth year the population should be enumerated along with the property of each family—land, live-

stock, slaves and freedmen. The main object was to ensure accurate division of the people into the six main classes and their respective centuries, which was based upon considerations of combined numbers and wealth. With the increase of the city the operation grew in importance, and was followed by an official lustrum, or purification sacrifice, offered on behalf of the people by the censors or functionaries in charge of the classification. Hence the name of lustrum came to denote the intercensal term, or a period of five years. The word census, too, came to mean the property qualification of the class, as well as the process of registering the resources of the individual. Later it was used in the sense of the imposition itself, in which it has survived in the contracted form of cess."

CHAPTER VIII.

THE COURTS OF JUSTICE.

It goes without saying that the welfare of the people is determined to a considerable extent by the nature of the law of the land and the efficient administration of justice. Laws are unseen agencies as important for popular well-being as the visible agents of government. The object of this and the following chapters will be to consider in detail some of the laws of Chandra Gupta's Government, the way they were administered, and the contribution they made to the material welfare of the country.

There were two classes of law courts in the country, the धर्मकीय courts and the कष्ट-क्योधन¹ courts—each differently constituted. There was also a difference in respect of the

¹ Literally, the courts for the removal of thorns (disturbances).

nature of the cases that came under their cognizance.

First, as to composition,¹ each षमीस्रीय court² was made up of three persons well grounded in the Sastras (i.e. षमीसाः) or three ministers (समात्याः) who sat together for hearing cases.

In each कप्यक्रमोधन court, three धमात्य's or three प्रदेशार's sat to decide cases.

Next, as to the jurisdiction of the courts, a पर्माणीय court generally decided such cases as arose from the personal grievances of one or a few individuals against another or a few other individuals, and the punishments were only in fines, these fines being not very heavy. The cases that came within the jurisdiction of a कर्पक्रायन court generally related either to matters that affected the Government, the king himself, the public at large and large bodies of men, or to such other heinous offences as murder. Though small fines were inflicted by this court for offences that were not so grave, yet the fines for the graver offences ranged up to a very high limit.

¹ Vide p. 147, व्यवदारसापना, and p. 200, कारकरसण्म—Bk. III, Arthasastra.

² The text seems to be faulty: " Tr" seems to be left out.

CH. VIII.] ANCIENT HINDU POLITY 119

This distinguishes it from a घर्मासीय court. Another distinction consisted in the fact that it lay in the power of a जण्डकारोधन court to inflict capital punishment, with or without torture according to the gravity of the offences.

Below are given two lists of the kinds of cases that came under the cognizance of the two classes of law courts:—

- I. The धर्मसीय court tried cases bearing on the following questions:—
- (i) Validity of contracts—व्यवहारसापना. (ii) Violation of contracts of service समयसानपावर्म. (iii) Relation between master and servant, employer and labourer खाम्बाबनारः, भतकाधिकारः. (iv) Slavery—दासकस्पः. (v) Recovery of debts- ऋणादानम्. (vi) Deposits-श्रीपनिधिकम. scission of sale—विक्रीतक्षीतान्म्यः. (viii) Resumption of gifts— दत्तस्यानपाकर्म. (ix) Robbery and violence—साइसम्. (x) Assault—द्ष्डपार्णम्. (xi) Defamation—वाकापार्णम्. Gambling-युत्रसमाक्रयम्. (xiii) Sales of property by another than owner— यस्त्रासिविक्रयः. (xiv) Rights of ownership— खखामिसम्बन्ध: (xv) Boundary disputes—सीमाविवाद:, मर्था-दाखापनम्. (xvi) Construction of buildings—वास्त्वम्. (xvii) Sale of house property—वास्तिकायः. (xviii) Damage to agriculture, pasture and public roads-विवीत चेनपथ-चिंचा. Miscellaneous hindrances वाधावाधिकम्. (xx) Duties of man and wife-विवाससंयुक्तम्, विवासधर्मः, स्त्रीधनकस्यः, etc. (xxi) Partnerships - सभायसम्यानम्. (xxii) Inheritance and succession -दायनिभागः, दायक्रमः, etc. (xxiii) Miscellaneous offences-प्रकीर्णकानि. (xxiv) Rules of procedure निवादपदिनिवन्धः.

II. The कष्टकशोधन court tried cases relating to the following:—

(i) Protection of artisans—कारकरचणम्. (ii) Protection of merchants—विदेश्रचणम्. (iii) Measures against national calamities—उपनिपानप्रतीकारः. (iv) Suppression of the wicked—गृहाजीविना रचा. (v) Detection of criminals by ascetic spies—चिक्यञ्चनिमानवप्रकाणनम्. (vi) Arresting robbers on suspicion or in the act—शङ्गायपक्रमाभिष्यः. (vii) Postmortem examination—बाद्यम् तकपरीचा. (viii) Cross-oxamination—वाद्यक्रमान्योगः. (ix) Discipline in Government departments—चर्गाधिकरण्यचण्. (x) Fines in lieu of mutilation of limbs—एकाङ्यचिक्यः. (xi) Capital punishment with or without torture—गृह्यविवयर्थक्यः. (xii) Improper social intercourse—कन्याप्रकर्म. (xiii) Punishments for miscellaneous offences—खनिचाररखः.

It should be noted that over and above these courts, the head-man (पानिक) and the elders of a village (पानक्या:) played an important part in the settlement of disputes among the villagers, and the former was vested with the power of summarily punishing certain offences. It appears from a passage that he could "deport" out of the village under his charge a thief or an adulterer if such a step became necessary.

¹ See वासुविक्रय:, p. 169, Bk. III, and विवीतचेवपण्डिंसा, p. 171, Bk. III.

CH. VIII.] ANCIENT HINDU POLITY 121

The king with his ministers and learned Brahmans formed the highest court of appeal.¹

Now, as to the seats of the above courts: they held their sittings in every चंपच्य, i.e. a town forming the headquarters of villages; in every दोपन्य, i.e. a town which was the headquarters of 400 villages; in every खानीय, i.e. a town being the headquarters of 800 villages; and in every जनपद्यन्ति, i.e. a place centrally situated between any two provinces of the empire. It will thus be seen that the metropolis must have had courts of the above two classes besides the royal law court.²

¹ Bk. I, राजप्रविधि: ।

² यवदारसापना and कारकरचणम् |—Bk. III; see also Bk. II, जनपद्निवेश: |

CHAPTER IX.

LEGAL PROCEDURE.

In the previous chapter the constitution of the law courts has been dealt with; in the present, the laws themselves will be considered.

The four basal factors that were taken into account in the administration of justice were: (1) Sacred laws or laws contained in the

- ¹ धर्मास व्यवसारस चरिचं राजणासनम
 - (a) विवादार्थचतुष्पादः पश्चिमः पूर्व्यवाधकः। अन सत्यस्थितो धर्मो व्यवहारसु साचिष्
 - (b) चरित्रं संग्रहे पुंसी राज्ञामाज्ञा तु शासमम् ॥ —Bk. III, विवादपदनिवन्धः, p. 150.

That यादार means here a contractual relation or a contract is indicated by passage (b). It says that **पर्म** is based on truth, यादार on evidence, and राज्यासन on the king's order, while custom is determined by large bodies of people. In fact, witnesses were essential to testify to contracts, which were mostly verbal in those days, and this favours the adoption of the above meaning. Besides, the word has been used in the above sense in Manu—VIII, 163, 164, 167; vide also the Indian Wisdom by Monier Williams, p. 268, where the word has been taken to mean contract.

CH. IX.] ANCIENT HINDU POLITY 128

Dharma Sastras (वर्ष), (2) contractual relations created by the parties (व्यवसार), (3) customary laws (चरित्र), and (4) statutory or king-made laws (राज्यासन).

In case of conflict between (1) and (2), or between (3) and (4), the former prevailed over the latter (पश्चिमः पूर्वश्वाधकः); so that a contract could not transcend sacred law or a statute custom. Passages quoted below show, further, that a statute should also be in consonance with sacred law (धर्म), contract (यवदार) and equity (न्याय), and that in case of conflict between custom (चंद्या) and contract (यवदारिक) the injunctions of sacred law should be followed. It is also stated that in the event of conflict between statute and equity the statute became inoperative and nullified.¹

When a case came up for decision, the pre-

म् अनुमासिक घमीण व्यवसारेण संख्या न्यायेन च चतुर्थेन चतुर्गा मही ज्येत्॥ मंख्या घमांमाक्षेण मास्तं वा व्यवसारिकम् यिमञ्जे विवधेत घमीणार्थं विनिद्येत्॥ मास्तं विप्रतिपद्येत घमीन्यायेन केनिचत् न्यायस्तव प्रमाणं स्थानच पाठो हि नम्मति॥ —Ibid., Bk. III, p. 150.

(Here अनुशासन् and शास्त्रं refer to राजशासनस्, i.e. king-made law.)

liminary step taken was the registration of the following particulars regarding the suit:—

(i) The exact date (showing the year, season, month, fortnight and day); (ii) the nature of the offence, and (iii) the place of its occurrence; (iv) the amount of debt incurred, if any; (v) the country, village, caste, gotra, name and occupation of the plaintiff (बादी) and the defendant (बादारी), both of whom must be competent to sue; and (vi) the statements of the parties, which had to be thoroughly scrutinized by the court.

Each of the parties had to be on guard against the following kinds of the offence termed परोन्नदोष (paroktadosha):—

(1) Deviating from the question at issue and taking to another question; (2) contradicting the previous statement; (3) insisting on the need of consulting the opinion of a third person though his opinion be not worthy of such consideration; (4) breaking off while answering a question though ordered by the court to continue; (5) introducing questions other than those already specified; (6) withdrawing the statement already made; (7) not accepting what one's own witnesses have said;

CH. IX.] ANCIENT HINDU POLITY 125

and (8) holding secret conversation with the witnesses when it was not allowed.¹

Besides these,2 there were other sorts of परोत्तदोष. The plaintiff had to make his rejoinders the very day the defendant had answered, for it was presumed that the plaintiff was ready to go on with the case; otherwise he was guilty of परोक्त. But if the defendant was not ready for the case, he was allowed three or seven nights to prepare his defence. If he failed to make his defence within that time, he was punished with a fine ranging from three to twelve panas. If he could not answer even after three fortnights, he was guilty of परोन्न, and the plaintiff could recover out of the defendant's property the amount sued for, unless he (plaintiff) agreed to accept in its stead some good service from the defendant. The same punishment was inflicted on the defendant who utterly failed in his defence. If the plaintiff failed to prove his case within the aforesaid time, he committed a परोक्त. If he failed to substantiate his charge against a deceased person, he was made to

¹ Arthasastra, p. 149.

² Ibid., pp. 149 and 150.

perform some of his funeral rites. If¹ he was not a Brâhman he might be ordered to perform the ceremonial रचोन्नरचित्रम्. The fine for परोक्त generally was पचन्न. Making an assertion without any evidence to support it was another परोक्तदोष, the fine for which was द्रमन्न.³

In cases other than strife, violent and direct seizure of property and disputes among merchants, the defendant could not file a countercase against the plaintiff. Two suits against a defendant for the same offence were not allowed.⁸

We now proceed to consider the rules regarding witnesses. At the outset it is to be noticed that agents were attached to the law courts for secretly ascertaining if possible the

¹ This passage seems to be a little faulty, and the meaning of the next passage, "आधि वा सकामं प्रवेशयोत्," is not clear.

 $^{^2}$ Vijñanesvar, in his Commentary on Jajñavalkya II, v. 174, explains **पश्च** as a fine equal to the fifth part of anything lost or stolen.

If in the light of this explanation, we take the meanings of पश्चम and दश्चम to be the fifth and tenth part of the amount sued for, we meet with difficulty in applying them to line 6, p. 176, Bk. III, ऋषादानम्, and line 6, p. 184, Bk. III, दासक्य:

³ चिमयुक्ती न प्रत्यभियुक्तित चन्यच कस्तर्र-साइस-सार्थ-सम-यायेभ्यः। न चाभियुक्तेऽभियोगोऽस्ति ।—p. 149.

CH. IX.] ANCIENT HINDU POLITY 127

real facts of a law-suit, and for reporting them to the judges.¹ How far the information they furnished would be followed in a particular case depended, of course, upon the discretion of the judges. They had to use their discretion with great caution, especially in cases like that instanced in the passage quoted below,² where the depositions of witnesses were inconsistent and contradictory, and consequently in conflict with the statement of the plaintiff, and where there was a divergence of the report of the "informants" from both the statement of the plaintiff and the evidence.

The principal check upon the indiscretions of the judges was the punishment they incurred for their laches and iniquity. The report of the informants had to be utilized therefore with great care, and, with its chances of abuse minimized, it was meant to help the judges sometimes by creating suspicions in their minds which prompted them to sift the

पूर्वीत्तरार्थंयाघाते साचिवत्त्रायकारणे
 चारच्छाच निष्णाते प्रदेख्यः पराज्यः ।
 —Bk. III, विवादपद्निवन्थः, p. 151.

² Ibid.

evidence more cautiously, and sometimes by corroborating the conclusion pointed to by the statements of the witnesses.

We find from the Arthasastra that a suit was not dismissed on the ground that there were no witnesses forthcoming to testify to the question at issue. For instance, in disputes regarding the non-payment of the wages of a labourer, he could sue his employer even if he could procure no evidence to support his suit.¹ Such a procedure would appear strange, unless we bear in mind that over and above cross-examination of the parties and overt inquiry that could be availed of in such a case, there was another resource to fall back upon, viz. the secret agency for collecting information. Several such instances will occur to us as we proceed.

Let us now turn to other rules. In a lawsuit three witnesses, either approved by both the parties (चनुसता:), trustworthy (प्रात्यिका:), or pure (प्राचय:), served the purpose best. In a

¹ Bk. III, दासवास्य:, p. 184.

² प्रात्यिकाम् ग्राचयो ब्लान ता वा वयो व्याप्याः । पचानुनती वा दी च्हणं प्रति न केविकः ॥—Bk. III, p. 175. च्हणादानम्, साच्यिकारः । In view of the fact that even a suit with no

CH. IX.] ANCIENT HINDU POLITY 129

suit for debt, however, two witnesses approved by the parties might be sufficient, but never one.

The fact of relationship with the plaintiff or defendant affected the competence of a person as witness. The following persons were not eligible as witnesses, viz., (1) wife's brother (खाख), (2) helpmate (चडाय), (3) prisoner (आवद), (4) creditor (धनिक), (5) debtor (धार्णिक), (6) enemy (वैरी), (7) dependent (नक), (8) convict (व्यव्यः). In addition to these a few other persons could not appear as witnesses except in cases which affected their own people: (a) the king (राजा), (b) a person learned in the Vedas (श्रीविय), (c) the village poor (ग्रामभुत), (d) lepers, etc. (कुडि, त्रपी), (e) an outcast (पितत), (f) a Chandâla (ৰ্ডান্ত), (g) a person of mean avocation (कुल्पितकर्मा), (h) a dogmatist (चरंगदी), (i) a female (की), and (j) a Government servant

evidence to support it could receive hearing, it seems inconsistent to translate "च्योऽवराय्याः" by "at least three witnesses." So it would perhaps be more reasonable to take "च्यार्याः" in the sense of "serving the purpose best" (वासि वरः यसात् = च्यरः).

भारयिका: and ग्राचय:—It may be that they refer to two distinct classes of witnesses designated by the two names, the most marked attributes of a witness determining the class under which he falls.

(राजप्रव).¹ In cases of assault, etc. (पारख), theft (खेय) and rape (पंपरण), persons other than the enemy, the wife's brother and the helpmate could bear witness. Any man or woman having secret knowledge of an underhand transaction could be a witness in regard thereto. The king and the ascetics (जापण) were exempted from this rule.

In case of a dispute between father and son, preceptor and pupil, or master and servant, the words of the superiors were given greater credence.

Witnesses had to take oaths to divulge the truth before Bråhmans, vessels of water and fire. There were set formulas, varying according to the castes of the witnesses, by which they were urged to speak the truth. A Bråhman witness was simply told "Speak thou the truth." The formula for a Kshatriya and a Vaisya was: "Thou wilt not have fulfilment of thy ambition and wilt have to go a-begging to thy enemies with a skull in hand for a begging-bowl (if thou speak

¹ In this passage it is not clear who are indicated by the words "पूर्व च चववहार्याः," p. 175, Bk. III, ऋणादानम् (साद्याधिकारः)।

CH. IX.] ANCIENT HINDU POLITY 131

falsehood)." A Sûdra was exhorted thus: "All thy religious merit will go to thy king and all the sins of the king will come to thee (if thou utter a lie), and moreover, thou wilt be punished. Inquiry will be made as to what has been seen or heard."

If the witnesses made a concert among themselves and kept back the truth for more than a week, they were fined twelve panas. If they continued obstinate for more than three fortnights they were punished with the payment of the amount sued for.

When the witnesses gave divergent evidence, the judgment was passed upon the basis of the statements of the majority of pure (अवसः) and approved (अनुसनः) men among them. Or the judgment could follow a via media, if any such were suggested by the diverse statements of the witnesses. Failing these, the Government assumed possession of the article, if

[े] ब्राह्मणोदकुशामिसकाथे साचिणः परिग्रह्मीयात्। तन ब्राह्मणं ब्रूयात—"सर्वं ब्रूह्मीत"; राजन्यं नैश्वं वा "सा तमेष्टापूर्णफलं कपाल्डसार्श्ववसं भिचार्थी गच्छे"रिति। श्राह्मजन्म "मरणान्तरे यदः पुष्णफलं तहाजानं गच्छेत्। राज्ञस् किल्विषं युप्रान् अन्यथावादे द्ष्डसानुबन्धः। पस्चादिप ज्ञायेत यथादयनुतन्"।—Bk. III, ऋणादानन, p. 176.

any, that formed the subject matter of the dispute.

If an amount were sued for and the witnesses deposed that only a part of the amount belonged to the plaintiff, then the rest of the amount had to be deposited with the Government. If, however, the witnesses testified to an amount greater in value than what was actually sued for, the excess went to the Government coffers.

Those witnesses who were easily accessible were called by the parties themselves; those who were far away or who would not come to court except under compulsion were served with summons (आधियाका).

The defeated party had to bear the fees paid to the witnesses. They received a food allowance (अवस्थि) in which were taken into account eight items of food. What these items were is not known. Besides this allowance, they were given the necessary expenses for and during their journey.

A peculiarity of Hindu law courts in ancient times was that the judges had to pay a penalty for their iniquity. They were strictly enjoined to decide cases free from all circum-

CH. IX.] ANCIENT HINDU POLITY 133

vention, steady in all circumstances, impartially and diligently, thus winning the love and confidence of the people; but if they were guilty of any laches, partiality or any such misconduct unworthy of a judge, they could not escape with impunity. This feature is also noticed in Chandra Gupta's law courts. If a judge threatened, rebuked, silenced or drove out a party to a suit, he was liable to the lowest amercement; and for abusing a party, to a fine of double the amount. If he put irrelevant questions to a party, wilfully omitted to ask a pertinent question, did not note down what he heard in reply to his queries, tutored or provided a party with his previous statements, he was fined the middlemost amercement. he inquired into unnecessary circumstances, caused delay by such inquiry, postponed work on flimsy pretexts, tired the parties out of court by his dilatoriness, misled them, helped the witnesses with clues, or sumed the work already disposed of, he was punished with the highest amercement. he committed any of the offences a second

¹ For the three kinds of amercement, see Bk. III, चाइसम्, p. 192.

time, he was fined double the amount and dismissed.

For an unjust fine, a nature or nature was fined double the amount or eight times the excess of the amount over the prescribed limit, according to the nature of the offence. If a corporeal punishment were unjustly inflicted, he was condemned either to the same punishment or to the payment of twice the amount fixed in lieu of that kind of punishment. The judicial officer who brought to naught a good case or helped to concoct a false one was fined eight times its value.

The scribe who took down the statements of the parties was liable to the following punishments for negligence or misconduct. If he wilfully omitted to note what was said, noted down what was not said, left out what was badly said, or rendered diverse or ambiguous what was well said, he was liable to the first amercement or to any other punishment proportional to his guilt.

Care was taken to prevent the escape of a culprit from the law court (धर्मासीय), the hâjat (चारक), or the prison (बन्धनागर), as

CH. IX.] ANCIENT HINDU POLITY 135

well as to prevent the abuse of the jailor's authority.¹

It is not clear who tried the judges for their misconduct. It seems most likely, and it is also consonant with the ancient Hindu law-codes, that the king or his associate judges tried them.²

Certain latitude seems to have been given to the superintendents of the several State departments to summarily dispose of certain kinds of offences committed by their subordinates. How far their power extended in this direction is not clearly defined, but it seems to have been confined to the offences done by the subordinates in their course of business.

¹ See Bk. IV, सर्वाधिकरणरचणम्, pp. 222, 223.

² See J. R. A. S., vol. ii, p. 198—"On Hindu Courts of Justice."

CHAPTER X.

THE LAW OF CONTRACT.

§ 1.—GENERAL.

To understand the full significance of contract (यवरार) as it obtained over two thousand years ago, it is essential that we should free our minds from the modern associations of the institution.

We shall begin with a general statement of the requisites of a valid contract, and then follow out each of those requisites in detail.

A contract1 was of course a two-sided

- 1 (X) तम्मात् साचिमद्क्षः कुर्यात् सम्यन्तिमाणितम्। स्त्रे परे वा जाने कार्ये देशकास्त्रामवर्णतः॥ —Bk. III, श्रीपनिधिकम्, p. 181.
 - (Y) से से तु वर्गे देशे काले च सकरणकता सम्पूर्णचाराश्याद्वदेशा दष्टकपज्ञचण-प्रमाणगुणास्सर्घ व्यवचारा स्मिध्येगुः। (पिद्यमं लेगं करणमादेशाधिवर्जं त्रदेगुः)

-Bk. III, व्यवसारसापना, p. 148.

In (Y), water may be taken to refer to the free exercise of

OH. X.] ANCIENT HINDU POLITY 137

act, and the parties thereto could be both individuals as well as groups; e.g. a body of persons engaged in a common concern (उभूय उम्ह्यान) was entitled to be a party to a contract.

Secondly, a contract had to conform to the following restrictions, viz. (a) that the agreement between the parties should be

one's will, though a technical meaning (=document) may be attached to करण (vide Manu, VIII, 51, 52, 154).

I quote here Manu, VIII, 51:-

षर्थेऽपययमानन् करणेन विभावितम्। दापयेदनिकस्यार्थे दण्डलेग्रश्च ग्राह्मतः॥

But whichever meaning is taken, the reference to the un fettered exercise of the will of the parties is apparent in both the cases. Atu in the second sentence in (Y) seems to bear the meaning of "document." The refers to the object or the the meaning of the contract, and to the circumstances under which a contract is made. This meaning of the (circumstances as opposed to the time and place of a contract) is found in Manu, VIII, 45—

पत्ममर्थे च सम्प्रश्चेदात्मानमथ साचिषः। देशं रूपं च कासं च व्यवचारविधी स्थितः॥

प्रमाण=authority. It seems to refer to capacity of the parties, witnesses, etc. अमूण चार refers to all the technicalities that are to be complied with. ग्रह्रेश, however, seems to be a needless repetition of what is implied by देश that goes before.

clearly expressed (चम्बन्सिंगित), (b) that it should not be made in secret (चन्द्र), and (c) that it should be in the presence of witnesses (पाचिसत्).

Thirdly, it should comply with certain conditions as to time (कास), place (देश) and वर्ग (i.e. caste, class, etc.).

Fourthly, the object (सचप) for which the contract was made and the circumstances (रूप) attending it must be such as not to offend against law in any way; e.g. there must be no undue influence, etc. (अपगचप).

Fifthly, the consideration (वेतन) must not be illegal and improper; the parties, witnesses and agents must be competent (प्रमाणगण्डल). In short, the contract must conform to all the technicalities of law, i.e. it must be चमुर्चचार [see passages (x) and (y), f.n.].

The first requirements, as I have already stated, are that the agreement of the two parties should be expressed properly and that there must be no secrecy about it. Witnesses have to be called when a contract is formed. It appears that instruments (करण) are used in contracts, and when the terms of a contract are entered on an instrument, the witnesses

can be dispensed with.¹ We find its parallel in some of the Sanhitâs. But witnesses were a necessity in oral contracts.² We find, however, an exception to this general rule. A suit was not dismissed on the ground that no witnesses were forthcoming to testify to a point at issue. In a dispute, for instance, regarding the non-payment of the wages of a labourer, the employer could be sued even if

¹ An analogy to this rule is found in Colebrooke's *Digest*, vol. i, p. 16, third edition, where the contract of loan is dealt with:—

[&]quot;Brihaspati, quoted by Bhavadeva, Vâchaspati and Chandesvar: A prudent lender should always deliver the thing, but, on receiving a pledge of adequate value either to be used by him or merely kept in his hands; or with a sufficient surety and either with a written agreement or before credible witnesses."

Yajñavalkya, II, 91.—"But every document which is in the handwriting of the party himself is considered as sufficient evidence even without witnesses, unless obtained by force or fraud." For the passage of Manu on this point, see supra. For references to documents in contracts, see the passage (Y) quoted above; see also the last sentence, p. 176, ऋणादानम्, which runs thus: वास्तियाद्भियोत्त्रवादुःश्रुतं दुर्शिखतं प्रेताभिनिवेशं वास्मीच्य साचित्रत्ययमेव स्थात्॥

² It has been pointed out, while dealing with legal procedure, that three witnesses either approved by both parties (चनुसताः), trustworthy (पात्यिकाः), or pure (ग्राचयः) served the purpose best. In a suit for debt, however, two witnesses approved by the parties might be sufficient, but never one. For a parallel rule as to the number of witnesses, see Yâjī., II, 69, 70; Manu, VIII, 60, 77.

the former could adduce no witnesses.1 Other instances of this exception will be furnished by the class of contracts called निरोचित, to which we shall have occasion to turn presently. The presence of witnesses was repugnant to the object of a निरोचित contract; it was entered into in secret. A document may sometimes be used in such a case in lieu of witnesses, but sometimes there may be neither a document nor any witnesses.2 Under such circumstances a dispute was decided by examination of the parties themselves, by a reference to any custom that might govern the transaction, by taking the opinion of experts (কুমড়া:), by utilizing other resources that the court commanded, e.g. the information given by the "agents" attached to the law courts, and by looking to some form essential to the transaction, e.g. the seal in the case of a sealed deposit. So we see that, as a general rule,

¹ दासकस्यः, कर्माकरकस्यः | Bk. III, p. 184.

² Manu, VIII, 109 and 110 (S. B. E.)—"If two (parties) dispute about matters for which no witnesses are available, and the (judge) is unable to really ascertain the truth, he may cause it to be discovered even by an oath."

[&]quot;Both by the great sages and the gods oaths have been taken for the purpose of (deciding doubtful) matters; and Basishtha even swore an oath before King (Sudasa), the son of Pijayana."

CH. X.] ANCIENT HINDU POLITY 141

openness and publicity were required for the formation of a contract, which had to be entered into in the presence of witnesses. The absence of witnesses could be made up for by an instrument or otherwise.¹

Let us now turn to the restrictions as to time and place with which a contract had to comply. As a rule, the following contracts were void, viz. those that were (i) नत्तकत, i.e. formed during night; (ii) चन्तारकत,² entered into in the interior apartment of a house; (iii) चरचकत, made in a forest; and (iv) उपकरकत, formed in any other secret place.³ The object

¹ In this connection it should be noted that a person who overheard or saw a thing by stealth could be taken as a competent witness—रहस्र यवहारेषेका की पुरुष उपयोगा उपदृशा वा साची स्थान राजनापसर्ज ॥ p. 176—सास्थिकार:. Other rules as to witnesses, that have been pointed out in connexion with legal procedure in general, apply also to contracts under proper circumstances.

² Manu takes note of the interior apartments of a house (अनवेश) and of forests (अरण): Manu, VIII, 69. Kauṭilya also particularly mentions them. Yājūavalkya mentions both नभा and अनरगर contracts in Bk. II, 32.

[ै] तिरोक्तिननरगार-निक्तारणोपध्यक्षर-स्तांस व्यवसारान् प्रतिवेषयेयुः । कर्नुः कारियतुत्र पूर्व्यस्यास्यद्णः । श्रोहणाने-कैंकं प्रत्यर्थदण्डाः । श्रदेयानां तु द्रव्यव्यमयः ।

Exceptions:-

⁽a) परोचेणाधिक र्णग्रचणमवक्त यकरा वा तिरोचितासि स्थेयु:॥

of making these contracts void is, as already pointed out, that the law wanted to discourage clandestine contracts as far as possible. However, to remove possible hardship to particular classes of persons who might suffer by these rules, there were exceptions to the four rules. I shall speak of them here in the order of the above rules [vide(c), (b), (d), and (f)]:—

(i) Though all नसकान contracts are void, yet those that have some connexion with or are made to ward off violence, attack and affray, those that are formed for doing anything connected with the celebration of marriage, as well as those made under orders of Government, were valid. The contracts made by the पूर्वराजयवसारिक: also fall under

⁽b) दायनिचेपोपनिधि विवादयुक्ता स्त्रीणामनिष्काधिनीनां व्याधितानां चाम्द्रभंज्ञानामन्तरगरकतासिष्धेयुः॥

⁽o) साइसानुप्रवेश कलाइ विवाह राजनियोगयुक्ताः पूर्वराच-यवदारिणां च रानिक्वतासिस्थेयुः॥

⁽d) सार्थविकात्रम - याधचाराण् मध्येषरणाचराणामरणाक्तरा-सिस्ध्येय:॥

⁽e) गुढ़ाजीविषु चोपिषक्तताः सिध्येयुः॥

⁽f) नियस्त्रमवाये चोपक्करक्तनाः सिध्येयुः । चतोऽन्यया न सिध्येयुः ॥—Bk, III, व्यवचारखापना, pp. 147, 148.

this exception.¹ It will be seen that all the cases mentioned here are cases of great emergency. Unless the rule is a little relaxed in respect of people trying to defend themselves from assault, etc., the protection of their life and property would be an impossibility, and it

¹ The exceptions under (i) seem to contemplate such cases as this:—If A promises B to pay a certain sum of money in consideration of his informing a police officer of a burglary that is being committed in A's house, the contract cannot be impeached on the ground that it was made at night.

पूर्वराच व्यवसारिण:-पूर्वराच is the time from dusk to midnight. The use of the word in this sense occurs in Aitareya Brahmana, Kausika Sûtra, Kâtyayana Srauta-Sûtra, Mahabharata, Pânini II, i, 45, commentary (see Monier Williams). Those who usually transact business during this time are therefore पूर्वरावयवहारिण:. But who exactly are meant is not clear. If we take the meaning to be any persons who enter into contract during y at 14 then an objection may be raised that if such a case had been contemplated some such sweeping rule as the following would not have been laid down, viz. that any नक्षत contracts are void; the general rule could then well have been that all अपर्रावकत contracts are void. Again, if all contracts be allowed up to midnight, why they cannot be allowed, say, a few minutes after midnight would be difficult to explain. Removal of secrecy about the contracts is the general policy, and therefore if all sorts of contracts are allowed during the first half of the night, they will offend against and for the time negative this policy. So it is most probable that only a limited set of persons is the object of consideration of the Government in this case, in view of the hardship that they will otherwise be put to, and therefore पूर्वराच व्यवसारिण: has most likely a technical meaning and refers to a limited group of persons.

is for the same reason, as well as for its own safety, that the State reserves to itself a full contractual freedom. Again, Hindu marriages are never celebrated before dusk, and sometimes the lagna (propitious moment) may shift so far into the night as to touch even its small hours; hence it is a necessity that contracts conditioned by such marriages should be sanctioned. As to the exemption relating to the class of persons last mentioned, there is some haziness as to who exactly are meant. The literal meaning of the word, viz. those who usually do their business during the first half of the night, does not carry us very far.

- (ii) This exception shows some consideration to diseased pardâh women (चनिकाचिषाः कीयः). If in a sound state of mind, they can make valid contracts relating to दाय (division of property), निचेप (open deposit), जपनिधि (sealed deposit), and निवास (marriage) in the inner apartments of the house, though the general rule is that चन्तरगार contracts are void.
- (iii) Exemption is given by the third exception to traders (पार्थ), बजाबम, i.e. cowherds, etc., hunters (बाध), spies (चार), and those who have to roam in the forests fre-

quently (मधेषरणाचर). They can enter into valid contracts in the forest, though contracts by all others in that place are void.

(iv) The fourth exception relates to the जपकर contracts. जपकर, as will appear from the text, refers to any secret place other than the private apartments of a dwelling-house or a forest. The general rule is that any contract in any such secret place is void, the exception being in favour of partners in a concern (नियम्भनाय).

It should be noticed that in all the four excepted cases, the requirements as to witnesses, or in lieu of witnesses the requirements as to document, had to be complied with, though of course if a case occurs in which neither any witness nor any instrument is available, and which falls within any of the exceptions, it will stand on its own merits, and the judges may try such a suit if they find it possible to do so, or may dismiss it. Another point that should be noted is that if a person tries to make a contract which is void on any grounds, the proposer (करी), the acceptor (करी), the witnesses (कीना), and the person who brings together the parties (कारियना) are all fined.

Now we turn to the legality of the object

(जच्य) and consideration (वेतन) of a contract. The object and consideration must be legal, and be such as can be upheld by a law court according to equity and good conscience. In the case of a contract in which one party tries to take undue advantage of the other, the court will interfere in favour of the party who is at a disadvantage. A concrete example given in the Arthasastra will make it clear. If a person who is being carried away by flood, or is caught in a fire, or is in danger from wild animals, be rescued on his promise to give to his rescuer not only the whole of his property but also his sons, wife and himself as slaves, the proposer cannot be made to perform his promise, it being opposed to all justice and common sense, and therefore illegal. The rescuer can realize only as much as is fixed by experts (क्रमणः) appointed by the law courts. Similarly, in the instance given of a contract with a public woman, improper demand made by her from her paramour or vice versa cannot succeed; the court does not support any such

¹ Bk. III, p. 184,—दासकष्पः, कर्माकरकषः ॥ नदीवेगजाला-सिनयासोपरः सर्वेखपू ऋदारात्यदानेनार्नसातारमाऋय निसीर्णः कुम्सप्रदिष्टं वेतनं दयात्। तेन सर्वेवार्णदानामुम्या व्याख्याताः॥

demand. Likewise, it will be seen from the passages already quoted that the general rule is that all उपिक्त, i.e. fraudulent contracts, are void, but an exception is made in favour of the spies appointed by Government. They can in their capacity as spies achieve their object by fraudulent contracts and are not penalized for the fraud they commit. It seems to me that cases like the following are contemplated by this rule: A spy, for instance, makes friends with a person whom he suspects to be a thief, and gradually insinuating himself into his confidence, proposes to buy the goods he has stolen. After taking possession of the stolen goods, the spy refuses to pay the value promised and puts the machinery of the law against him instead. In such a case the law court punishes the thief, but it cannot punish the spy as well for the fraud he has committed; neither can the thief bring a suit against the spy on the same ground. Thus the law softens its rigour and legalizes an evil to suppress a greater evil.1

¹ E.g., Katyayana says: "If a bribe be promised for any purpose it shall by no means be given although the consideration be performed." (See Colebrooke's *Digest*, vol. i., p. 462, third edition.)

Now that the four kinds of valid contract. नम्नहत, चनारगारकत, चरणकत and उपकरकत, which derive their validity on account of the exceptions laid down, have been dealt with, it is time that we should turn to the valid (निरोचित) contracts. A place is निरोचित if it be such that anything done there would be sheltered from human sight.1 It therefore includes चनारगार. चरण as well as उपकर. Now let us look at the matter from another standpoint. Under cover of night a place may become faरोडित, i.e. may be out of view on account of darkness. Therefore a facility place which is परोच has reference both to the nature and situation of the place as well as to time, e.g. night. The general rule is that contracts made in such a place are void, and the exception that attaches to this rule derives its validity from the objects in pursuance of which the contracts are formed. We shall consider the objects shortly, but before doing so, let us inquire whether the validation of a proper निरोक्ति contract necessarily involves a

¹ परोचेणाधिक र्णयहण सबक्त बाति रोहिता स्थि शृशः ॥ Bk. III, p. 147. Here परोच explains तिरोहित. A तिरोहित place is one which is परोच, i.e. sheltered from human gaze.

deviation from the restriction that night vitiates all contracts. It seems that such a deviation takes place in this case. We see that two classes of objects are mentioned which can validate निरोचित contracts, viz. (i) चित्रणेपचणम्, i.e. contracting a heavy debt, and (ii) objects which are अवस्यकर, i.e. cannot be expressed and brought into others' notice owing to the delicacy attaching thereto. As to (i), it should be noticed that incurring a heavy debt detracts from the credit and reputation of the debtor and lowers him in the estimation of the people who come to know of it. Therefore, for the benefit of the debtors perhaps, such an exception has been made. Regarding (ii), a difficulty arises as to what kinds of delicate and secret matters are meant. Among the numerous instances furnished by the Arthasastra a valid contract between a woman of the town and her paramour seems to be, from its delicate nature, an instance in point.

We can well see that in a contract which involves a delicate matter, the contracting parties will rather seek the covert of night for the secrecy it can afford and shun by all means the light of day. In view of this, it is in no wise strange that an express sanction is given to a deviation from the restriction as to night. It should further be stated here that a valid निरोक्ति contract also contravenes the general restrictions as to चनरगर, उपकर and चरण, for it has been already pointed out that निरोक्ति includes all the three places.

One word remains to be said to mark out more distinctly the difference between a facilital contract on one side and the three other contracts on the other. The principal difference lies in the objects of the contract, the objects of facilital contracts being secret and delicate. There are a few minor differences, which are apparent from the statements already made.

We shall next consider the restrictions as to the वर्ग of the witnesses [see passage (x)].¹ The word वर्ग appears to be very comprehensive, and signifies everything that the expressions व्यवर्णन: and से परे वा जने in passage (x) can imply. Kautilya does not explain clearly the restrictions, but they have to be interpreted in the light of what Manu and other

¹ The references here are to the two passages (X) and (Y) quoted in the foot-note at the beginning of this chapter.

CH. X.] ANCIENT HINDU POLITY 151

such ancient lawgivers say on the point. In Manu the following rule is laid down, viz.—

"Women should give evidence for women, and twice-born men for twice-born men of the same kind, virtuous Śūdras for Śūdras, and men of the lowest caste for the lowest."

The commentary of Medhâtithi throws more light on this point. He says that "twice-born men of the same kind" means "twice-born men of the same caste, occupation, etc." The line से परे वा जने कार्य (कुर्यात्) अगवर्णतः signifies that a Brâhman should choose a Brâhman for a witness, a Kshatriya a Kshatriya, and so forth; and failing that, a person belonging to another वर्ष may be taken as witness. Therefore the two passages (x) and (y) lead to this conclusion that the contracting parties should try to make their contracts in the presence of castemen of the same sex and occupation as themselves in the first instance, failing which they can take witnesses belonging to the same caste and sex but having a different occupation, and when this also fails, men of a different वर्ष may be called.

Next we consider the rules about the capacity

[े] स्त्रीणां साच्यं स्त्रियः क्वर्यादिकानां सदशा दिकाः ग्राहास सन्तः ग्राहानामन्यानामन्ययोनियः।—Manu, VIII, 68.

² चपवर्णतः refers to the four वर्ण, viz. Brîhman, Kshatriya, Vaisya, and Sûdra. [See passage (Y) supra.]

of parties to make a valid contract. No contract can be made if any of the parties be (i) in a fit of anger (क्रुद्ध), (ii) under stress of extreme sorrow, distress and danger (बार्ग), (iii) intoxicated (मन), (iv) insane (बन्नन), or (v) under undue influence, duress, etc. (बमरदीन).

Those who act in supersession of these bars are fined as already pointed out.

In connexion with the subject of contracts made through agents, of which I shall speak presently, a few terms occur which imply some other absolute disabilities so far as the principals are concerned.² **WHINTERITY**, for instance, indicates an age below which a person cannot make a valid contract on his own account; similarly, **WARTAGRAGIC**³ signifies

¹ In the case of an agreement with an जारी (man in distress), though no contract with him can hold good at law, yet we find that the law court makes him pay a sum fixed by experts (क्रम्स) if he has already got any benefit from the other party. (See Arthasastra, Bk. III, p. 184, रामकस्प:.)

² खपात्रयविद्वस्य कताः, पित्रमता पुनेष, पिना पुनवता, निष्मुखेन धाना, किनिष्ठेनाविभन्नांशेन, पित्रमत्या प्रवस्या स्र स्थिया, दासास्थितकाभ्यां, खप्राप्तातीतव्यवसाराभ्यां, खिमस्सप्रव- कितव्यक्वयस्निभियान्यनिक्ष्टव्यवसारेभ्यः।

⁻Bk. III, व्यवसारसापना, p. 148.

³ सतीतवाव दार literally signifies a person who has lost his capacity to contract in any way; but most probably a limit of age is meant.

another disability, due most probably to an age-limit beyond which a person is supposed lose the amount of discretion that is necessary for making contracts on his own behalf, though he may act as an agent under the instructions of his principal, just as a minor Manu and others, however, make decrepit old age (स्वित्स) an absolute bar. It should also be noted that an ascetic (प्रविचात), a person convicted (अभिमस), one physically deformed (यक), or one passionately addicted to any kind of evil practice, e.g. drinking (यसनी), can, according to Kautilya, make contracts on behalf of principals authorizing them, but Kautilya does not clearly state whether they can also enter into contracts on their own behalf. Some of our ancient lawgivers, however, mention a few of the above conditions as nullifying contracts.

One other disability remains to be mentioned. A woman cannot have pecuniary dealings with a man or a woman with whom she is forbidden by law or by her superiors to do so. If she

¹ See Bk. III, p. 156, विवाससंयुक्ते प्रतिषेधः.

Cf. Nårada to Indra in the Harivansa: "No man, O thou subduer of foes, should have pecuniary dealings with him from whom he desires much affection, nor visit his wife in his absence."—Colebrooke's Digest, vol. i, p. 16.

violates the prohibition she is punished. This rule applies also to a male.

We shall now consider the rules about the appointment of agents. The following persons, if authorized by the principals, can make contracts as agents:—

(i) Dependents, for the person who supports them, (ii) son, for the father, (iii) father, for the son, (iv) a brother, for another brother though not belonging to the same joint family, (v) a younger brother belonging to the same joint family, for an elder brother, (vi) a woman, for her husband or her son, (vii) a slave, for his master, (viii) a minor (अवायववार), for one who has attained majority and is otherwise competent to contract, (ix) a person who is अतीवववार (see above), (x) a person convicted (अविवा), (xii) an ascetic (प्रविवा), (xiii) a physically deformed person (यक्ष), and (xiii) one addicted to passion (वक्षी).2

4

I shall now name here the principal transactions that bear the character of contract:

¹ For the meaning of चाचितक, see Arthasastra, Bk. III, p. 182, दासकचा:.

² For the text, see *supra*. The text seems to be a little faulty in its first portion, and so I interpret it subject to some doubt.

CH. X.] ANCIENT HINDU POLITY 155

(i) ऋषादानम् (loan), (ii) विक्रय (sale), (iii) निचेप (open deposit), (iv) उपनिषि (sealed deposit), (v) mortgage, pledge, etc., (vi) hire, (vii) partnership, (viii) contract of service, and (ix) a few other miscellaneous contracts.

From the above we have an idea of the elements that made up अवसार in Chandra Gupta's time. The elements that constituted a अवसार may well justify us in calling it a contract, though, of course, owing to the peculiar circumstances of the time in which it prevailed, it assumed a different complexion. We notice also that Government exercised a good deal of control over the details of the subject's life, and therefore legal interference touched spheres now looked upon as merely moral or social. A vagueness necessarily attaches to some of the details of अवसार, but on the whole we see its broad features and in them a generic likeness to a modern contract.

§ 2.—SALE AND PRE-EMPTION.

We have discussed the general principles underlying Hindu contract in Chandra Gupta's time, and shall proceed to discuss some of the more important contractual transactions.

We begin with the sale of immoveable property. The first provision in regard to this is that the piece of property on sale has to be offered for purchase in the first instance to the kinsmen (जातवः) of the seller. If they do not propose to buy, then the property has to be offered to the neighbours, who can claim such right on the ground of vicinage or participation in the appendages (चामनाः); and on their refusal to purchase, the property is to be offered to the creditors of the seller (धनिकाः).¹ These rules evidently indicate that something like the right of pre-emption existed in those days. The texts concerning pre-emption are very few in Sanskrit legal literature, and even those that exist have been explained away by later commentators. I quote here Prof. Jolly's view on this point:—

[&]quot;A trace of pre-emption in the Hindu law occurs in the text quoted in the Mitakshara and other standard law books. It is

¹ ज्ञातिसामनाधनिकाः क्रमेण भूमिपरियत्तान् क्रोतुमभ्याभवेद्यः। —Bk. III, वासुविक्रयः, Arthasåstra, p. 168.

स्दवासुकम्; वास्तु here means स्टइं चैत्रमारामम् से तुबन्ध-साङ्गकमाधारी वा, p. 166.

² Colebrooke's Mitāksharā, chap. i, sect. i, 81.

CH. X.] ANCIENT HINDU POLITY 157

as follows-'Transfers of landed property are effected by six formalities: by consent of fellow-villagers, kinsmen, neighbours and co-parceners, and by gift of gold and water.' This text indicates clearly the existence in the early period of the Hindu law of a feeling that a transfer of landed property is not valid unless the neighbours, fellow-villagers and others who are but remotely concerned with it should have given their consent to its being effected. These persons might therefore be supposed. perhaps, to have been invested with a right of pre-emption. Whatever notions may have been prevalent on this subject in the early period of the Hindu law, this much is clear, that the compilers of those commentaries and digests of law on which the modern law is based did not approve of any sort of preemption. Thus the Mitakshara, in dealing with the above text, deprives it entirely of such legal significance as may have once belonged to it. The consent of fellow-villagers, according to the Mitakshara, is required for the publicity of the transaction merely; but the contract is not invalid without their consent. The consent of neighbours tends to obviate future disputes concerning boundaries. The consent of kinsmen and coparceners is indispensable when they are united in interest with the vendor. If they are separate from him, their consent is useful because it may obviate any future doubt as to whether they are separate or united, but the want of their consent does not invalidate the transaction. This interpretation of the Mitakshara may be viewed as an instance of the way in which the Indian commentators used to dispose of obsolete laws. the same time, it shows clearly that anything approaching to pre-emption was entirely foreign to the ideas of such an eminent authority as Vijnanesvara, the author of the Mitakshara."1

A few other texts besides the one referred to above occur also in the Mitakshara. They are:—

 $^{^{1}}$ See also Vivâda Chintâmaṇi, translated by P. C. Tagore, p. 309.

- (1) "In regard to the immoveable estate, sale is not allowed; it may be mortgaged by consent of parties interested." This text, like the above, is also anonymous.
- (2) The text of Brihaspati cited in the Mitâksharâ, viz. "separated kinsmen, as those who are unseparated, are equal in respect of immoveables, for one has not power over the whole to make a gift, sale or mortgage."

The way in which these two texts have been explained away may be found by a reference to their respective sections in the Mitakshara.

(3) In a passage in the Mahânirvâṇa² Tantra the rules of pre-emption are set out thus:—

"The proprietor of immoveable property having a neighbour competent to purchase it is not at liberty to sell such property to another. Among neighbours, he who is a relation or of the same tribe is preferred. In their default, a friend and the will of the seller prevails; even though the price of immoveable property be agreed upon with another, yet if a neighbour pays the price, he is the purchaser and not another. If the neighbour be unable to pay the price or be consenting to the sale, the proprietor is then at liberty to sell it to another. O Goddess! if immoveable property be sold in the absence of the neighbour, and he (the neighbour) pays the price immediately on hearing of the sale, he is competent to take it. But should the purchaser, having made houses or gardons, be in enjoyment of them, the neighbour is not entitled to take such immoveable property even by paying the price."

¹ Colebrooke's Mitakshara, chap. i, sect. i, 32.

² द्वाइमोद्वास, Slk. 107 ff., Macnaghten's translation.

CH. X.] ANCIENT HINDU POLITY 159

The Tantras have never been recognized as authorities on law; neither have these rules been quoted in any current authentic law book. So they have failed to influence the practical law of the present day, and the net result is that, except in Behar and some other provinces of India, the right or custom of pre-emption is not recognized as prevailing among the Hindus; and in the districts where the custom has not been judicially noticed the custom has to be proved in each case.

It is generally inferred from the way in which the commentators explain, or rather explain away, the texts, that it was at the time of the Muhammadans that the right of preemption first came to be recognized among the Hindus. Such an inference cannot be supported if we read properly the mental attitude of the commentators. The later the legal authority, the more hostile is he to restraint on alienations of property. It cannot be denied that the rule, that a member of a joint family cannot sell his share in the joint property without the consent of his co-sharers, aimed at a result similar to that which the Muhammadan

law of pre-emption intends to achieve.¹ The provision that a field cannot be sold without the consent of the whole village in particular cases, or without the consent of the family, which certainly existed in ancient times, also points to the same conclusion.²

It is often argued that the absence of a Sanskrit name for pre-emption shows the absence of the custom. Such a position is absurd on the face of it, for what is described at length need not necessarily be named. Besides, in all the cases we have noted, the subject of pre-emption has been subsumed under a more general one which has given its name to the chapter, and so we do not find a Sanskrit equivalent.³

From the above it appears that the custom of pre-emption among the Hindus dates back to a much more ancient period than is generally supposed, and the advent of the Muhammadans

¹ The author of the Dâyabhâga sets aside the rule by saying that sales of undivided shares are immoral but valid in law.

² Vide E. W. Hopkins's India Old and New: Land Tenure in India.

³ The word प्रखान in Manu, VIII, 399, no doubt implies a right of first-purchase or pre-emption, as Monier Williams calls it, but it is claimed by Government, and in regard to moveables (भाषानि); therefore it cannot be called pre-emption proper.

only marks a particular stage in its history. The passages in the Arthasâstra serve only as evidence of a custom which is much older than the passage itself.¹

Having now seen how a piece of immoveable property was offered for purchase to certain classes of persons in preference to others in the days of Chandra Gupta, let us turn to further stages in the process by which the sale was effected.

The fact of the property being on sale has to be announced publicly in the presence of a large number of men who come from not less than forty neighbouring houses, and who have no personal interest in the sale.²

As immoveable property includes cultivated fields,³ gardens, enclosed spaces, tanks and reservoirs, each of these kinds of property, before being put to sale, has its boundaries

¹ Vide in this connexion Sivsaranlal's Law of Pre-emption.

^{&#}x27; ततो श्रें वाश्वास्तामनाचलारिं श्रेत्र कुछा ग्रेष्ट्रित मुखे वेश्व शावयेयु: । सामनाशाम हक्षेषु चिनमारामं से तुवन्यं तड़ाक माधारं वा मध्येदासु यथा से तुमागं ''श्वेन गर्धेण कः क्रोता'' रति जिरा-युवित वीतमध्या हत्तं क्रोता क्रोतुम् सभेता ।—वासविक्रयः, p. 168.

^{ृ[}For सेतुबन्ध, see p. 60. पुष्पफल्लवाटषण्डकेदारमूखवापास्-सेतुः।]

³ See f.n. above.

accurately defined in the presence of the neighbouring village-elders and elderly villagers (सामन्यामष्टदेश).

Then the crier (प्रतिकादा) shouts thrice the following words: चननार्धेष कः क्रेसा, i.e. "Who will buy at this price?" thus announcing the price of the property fixed by the seller. The purchaser who accepts the price then enters upon the purchase if the sale be unconditional and not objected to by any claimant.

A tax is levied upon all such sales, and in the event of any increase of price owing to superior natural advantages, the unearned increment goes to the State.¹

The crier is responsible for the collection and payment of the tax on the sale.² Any fraudulent announcement of sale of property of which the seller is not the proprietor is punishable with a fine of 24 panas. No sale

¹ स्वर्गवायोकी भूत्यवर्धने भूत्यष्टिकः सम्मालका कोमं गच्छेत् p. 168.

[े] विक्रयप्रतिक्रोष्टा ग्रास्कं द्यात्। अस्तामिप्रतिकामे चतुर्वि-म्रतिपणो दण्डः। सप्तराचादूर्द्धमनिभस्ततः प्रतिक्रुष्टो विक्री-णीत। प्रतिक्रुष्टातिक्रमे वास्तुनि दिग्रतो दण्डः, अन्यन चतुर्वि-म्रतिपणो दण्डः॥—Ibid.

163

can be kept in abeyance for more than a week, within which time the possession must be delivered to the buyer and the sale completed. If the purchaser is by fraud passed over and the property transferred to another, the irregularity is punishable with a fine of 200 paṇas. The punishment for other sorts of fraud is 24 panas.

The following restrictions in regard to the sale of immoveable property are also to be noticed. Tax-payers (कर्डाः) can sell their fields to tax-payers alone, and Brahmans can sell their महादेव or gifted lands to those Brahmans only who are endowed with such lands. Violation of this rule is punishable with the first amercement. Neither can a tax-payer enter on a holding exempted from the payment of taxes. If a tax-payer enters on the holding of another tax-payer, he becomes the owner of the whole property except the house (चπτ) of the seller, unless it be given over by express agreement. If a non-taxpayer allows his land to lie fallow, another competent person may enjoy it for five years, after which he has to return the same to the owner after taking due compensation for the improvement made. The non-taxpayer may live elsewhere, retaining the ownership of his land.

It may be noticed in passing that the period of prescription in respect of immoveable properties was usually twenty years, but it does not hold good in the case of the enjoyment of a piece of immoveable property by kinsmen, priests, or by heretics during political disturbances; neither does it apply in cases of mortgage.²

We shall now consider the rules regarding moveables. In the sale of moveables, no elaborate formalities are needed. It appears that in a sale of moveables, property passed by payment of price and delivery of possession.

A refusal to perform a contract of sale, or a refusal to sell an article put for sale by a dealer, was punished with a fine of 12 paṇas; but if the seller could prove any of the following three pleas he was exempted:—

- (1) That the article in question has defects (হাম).
 - (ii) That it has been lost by उपनिपात, i.e. has

¹ विवीतचे वपयत्तिंसा, p. 171, etc.

² संसामिसम्बन्ध:, p. 190 ff. Cf. Yājñ., II, 24, 25.

CH. X.] ANCIENT HINDU POLITY 165

been stolen, or confiscated by the State, or destroyed by flood or fire.¹

- (iii) That it has been found on examination to be unacceptable because it does not possess many of the properties originally imputed to it, or because it has been manufactured by diseased persons (जिल्ला).
- (iv) Another excuse for non-performance of a contract of sale is that a fragile thing contracted for sale to a person cannot be retained longer without detriment to it, and so it has been sold to a third person.

The time allowed for rescission of sale is one night for traders, three for cultivators, and five for cowherds. With regard to the sale of the necessaries of life, however, a period of seven nights is allowed to people of all classes.

A person not accepting an article bought by him is fined 12 paṇas unless his case has any of the excusing grounds mentioned above.²

If diseased or unclean bipeds and quadrupeds are sold as healthy or clean, the seller is fined

¹ Yájñ. uses the words पण्यदोष and राजदेवोपघात while speaking of non-delivery of sold articles.—II, 259.

² विक्रीतक्रीतान्ययः, p. 187 ff.

12 paṇas.¹ The time for rescission of sale is three fortnights for quadrupeds, but as regards bipeds no time is expressly mentioned in the text. The rescission rule is applicable in the sale of slaves also, and a period of one year is allowed.

The principle followed in these rescissions is that the judges should try to effect them without detriment either to the seller or the buyer as far as possible.

As regards sale through agents (चेवाहराविक्रय),² the following rules are laid down. Agents selling the merchandise of wholesale dealers at prices prevailing at particular localities and times shall hand over to the wholesale dealers as much of the sale-proceeds and profit as is realized by them. If, owing to the default of the selling agents to sell at the proper place and at the proper time, there be a fall in the prices, the agents shall pay the value and profit at the rate which obtained when they received the merchandise. If, however, the wholesale dealers agree to remit the profits, the agreement

¹ Ibid. Of. Manu, VIII, 222, 223, on Rescission of Sale.

[°] वैयाष्टत्य-विक्रयः, — चीपनिधिकम्, p. 179.

will be carried into effect. In case of a fall in the price, the reduced sale-proceeds would be given to the wholesale dealers. If the agents represent that the goods have been destroyed or lost by उपनिपात (explained above) or in transmission (प्रेप), and if the representation appears reasonable1 and trustworthy, and is not contradicted by any official report, then the value of the goods need not be made good to the wholesale dealers. The profit and value of the articles would be calculated after making due allowance for all the necessary wear and tear they undergo if they are sold at a distant future, or at a distant place. If the wholesale dealers are combined in a partnership, then each will take his own share of the value and profit or loss. The rest of the rules are to be supplied from those regarding deposit (खपनिधि).

Some of the following rules regarding the fraudulent sale of articles² are wide enough and can cover cases in which sale does not come in; but as all of them may also apply to cases

¹ संव्यवसारिक—generally intelligible, i.e. reasonable.

[:] पासासिविक्रय:, p. 189 ff.

where a sale is involved, they have been put here together.

On the detection of a lost article in the possession of a person, the owner will cause him to be arrested by the order of the judge of a court; if, however, time or place does not permit this process, he can arrest the person himself and realize the article. The judge shall put this question: "How have you got the article?" If he narrates how he got it, but cannot produce the seller, he will be acquitted, but will lose the article. If the seller is produced, he shall pay not only the value of the article but will also be liable for theft. If the seller runs away or hides himself with the article till it is wholly consumed, he shall not only pay its value but also be liable for theft.

After proving his title to the lost article, the owner shall be allowed to take possession of it; but on failure to prove his title, he is to pay a fine of five times the value of the thing, and the State takes the article. If the owner takes possession of a lost article without obtaining permission of a court, he shall be punished with the first amercement.

Stolen or lost articles, on being detected by persons other than the owner, are to be deposited at newer, i.e. the place for the collection of tolls. If no claimant be forthcoming, such an article is taken by the State.

He who proves his title to a lost or stolen biped shall pay 5 panas as ransom (निष्णाय) before taking possession. Likewise, the ransom for a single-hoofed animal (पनपुरस) is 4 panas; for a cow or a buffalo, 2 panas; for minor quadrupeds, 4 pana; and for precious stones, etc., 5 per cent. of their value.

Whatever of the property of his own subjects the king brings from forests or countries of enemies, shall be handed over to its owner. Whatever of the property of his subjects stolen by thieves the king cannot recover, shall be made good by the State. If the king be unable to recover such a thing, he shall allow any person who volunteers to fetch it; otherwise, he shall pay an equivalent compensation to the sufferer.²

¹ Cf. Yâjñ, II, 171–177.

² च्यामिनिकाय:, p. 190. A parallel to the liability of the State for compensation to the injured party for loss of the sort mentioned above is to be found in Manu, VIII, 40; Yájū., II, 37,

Ownership in properties continues though the owner is away from the place where they lie, but the owner who neglects to question the enjoyment of his moveables by another for ten years continuously loses his right therein. The aged and the minors, the diseased and the distressed, the sojourners abroad and those who have forsaken their country for good, are exempt from this rule. The exemption also applies to cases where the assertion of title is prevented by absence due to political disturbances, as also to open and sealed deposits, pledges, treasuretroves, women, boundaries, and articles belonging to the priests and the State.¹

§ 3.—LOANS.

We shall now discuss the subject of loans. The rules regulating loans are justly recognized to be of great importance, for on them depends

とうととなると、日本では、日本では、日本のでは

^{275;} and Nårada, II, 17. It is interesting to note that a similar provision has also been incorporated in the Manu-Kyay-Damathat of the Burmese law: "If cattle have been stolen, the inhabitants of that district were held liable to which the footmarks of the stolen cattle are traced."—Richardson's Transl., IV, 3, p. 117.

¹ चलामिविक्रयः, संस्थामिसम्बन्धः, p. 190 ff. Cf. Manu, VIII, 145-149.

to a large extent the economic welfare of the country, राजन्यगेगचें as Kautilya puts it.1

In those olden days the exploitation by the grinding money-lenders of the necessities of the poor and the needy was checked by a fair rate of interest. The fair rate was determined by the State, which punished all deviations from it.

The legal rate of interest for a money-lender, as mentioned in the Arthasastra, is $1\frac{1}{4}$ p.c. per

¹ ऋषादानम्, Bk. III, p. 174.

² This rate of interest, viz. 1½ p.c. per month, is also found in the Sanhitas. The question is whether it was charged on a secured debt or not. Vyasa is very explicit on this point. He says: "Monthly interest is declared to be an eightieth part of the principal, if a pledge be given; an eighth part is added if there be only a surety; and if there be neither pledge nor surety, two in the hundred may be taken from a debtor of the sacerdotal class" (see Cole.'s Digest, i, 80). Yajnavalkya also makes 11 p.c. per month the interest on a secured loan, for he enjoins that "on a secured loan the interest every month is one-eightieth part of the principal" (II, 38, M. N. Dutt's ed.). Vasishtha and Narada are at one on this point. "A moneylender may stipulate, as an increase of his capital, for the interest allowed by Vasishtha, and take monthly the eightieth part of a hundred" (Manu, VIII, 140, S. B. E.). According to the commentators Küll., Når., Ragh., and Nand., the rule refers to a secured debt, but Med. and Gov. think that the rule refers to cases where the creditor is able to live on this interest and is not compelled to take a higher rate for his living. However, the former is the view accepted on all hands, supported as it is by the parallel passages of Yajn., etc. (see also Cole.'s Digest, i, 24). Vasishtha's text runs thus: "Hear the interest for a money-lender declared by the words of Vasishtha: 5 mashas for

month, *i.e.* 15 p.c. per year. For the reasons given below, it seems that this rate of interest was chargeable on secured debts, the maximum rate allowed on unsecured ones being prescribed

20 karshapanas may be taken every month; thus the law is not violated" (II, 51, p. 16, S. B. E.). One karshapana being equal to 20 mashas, the rate is 11 p.c. per mensem. Narada also refers to Vasishtha: "Let a money-lender take in addition to the principal the interest fixed by Vasishtha, viz. an eightieth part of a hundred in every month" (I, 99, S. B. E.). Brihaspati prescribes an eighticth part of the principal to be the interest on it every month (XI, 3, S. B. E.), while Gautama says: "The legal interest for money lent is at the rate of 5 máshas for 20 kárshápanas per month" (XII, 29, S. B. E.). On the strength of the other Sanhitas, these two passages would no doubt be taken to relate to the case of secured loans. Baudhâyana, however, disfers from all the above authorities by prescribing a different rate of interest, viz. 1 p.c. per month. His rule is that "a sum of 25 karshapanas shall bear an interest of 5 mashas per mensem" [I, 5, 10-(22), S. B. E.]. He does not expressly apply it to cases of secured debts; but even if it be taken to apply to unsecured loans, the difference from the other Sanhitas does not cease; for almost all the authorities quoted above, including Vishnu and Harita, expressly mention that the creditor may take 2, 3, 4 and 5 p.c. (and not more) as monthly interest on unsecured loans according to the order of the castes. e.g., a Brahman debtor has to pay 2 p.c. per month, a Kshatriya debtor 3 p.c. per month, and so on. So Baudhayana is the only dissentient authority in regard to this point.

In view of the general correspondence of the Sanhitas as to the rule that 1½ p.c. per month is the interest to be charged on a secured loan, I am inclined to take the passage in Kautilya, "स्पाद्यणा अन्यो सास्ट्रि: प्राथनस्थ," as applicable to secured loans. This view gains further support when we take into account the fact that no separate rates of interest are

by the next passage as 5 p.c. per month. But the rate is allowed to increase in view of the risks to which the investment of the money lent, and consequently its realization,

mentioned in connexion with the rules regarding pledges, upon one kind of which, viz. where the thing pledged is used by the pledgee, interests are chargeable; nor are they mentioned in regard to rules about mortgages.

The rate of interest allowed by the Sanhitâs in the case of the Sûdra debtors, viz. 5 p.c. per month, corresponds with that given in the second passage of the Arthasâstra (च्यादानस्, p. 174, Bk. III): "प्राप्त यावस्ति"; and as the Sanhitâs apply the rule to unsecured loans, I am inclined to think that the passage of Kautilya mentions the maximum rate allowed in the case of unsecured loans.

Laws restricting the maximum rate of interest are found in many countries both of ancient and mediæval times. In Greece, "the Seisachthira of Solon (B.C. 594), according to some ancient writers, included a reduction of the rate of interest, stated by Plutarch to have been about 16 p.c. per annum. In the opinion of Grote, however, no restriction was put by it upon interest. At Coreysa, in the second and third centuries B.C., loans on good security commanded 24 p.c., while the common rate at Athens in the time of the Orators was 12 to 18 p.c. . . . Such high rates were exceedingly oppressive to agriculturists, whose fortunes are always precarious" (Palgrave's Dict. of Pol. Ec.).

According to the same authority, "the ancient law of Rome allowed interest which, as usual in agricultural communities, reached an exorbitant height, and popular suffering necessitated a readjustment of debts. The law of the Twolve Tables (B.C. 451-450) first, according to Tacitus, limited the rate to one-twelfth part of the capital... In B.C. 347 interest was fixed at 5 p.c.; in B.C. 342 it was abolished altogether by the Lex Genucia. Although the prohibition of interest long remained law, it was found impracticable... The Lex Unciaria of the

are exposed. Accordingly, the money borrowed by persons going to forests for trade is allowed to return an interest of 10 p.c. per month, while, on the same principle, the interest payable by the merchants who trade by sea is allowed to mount up to the maximum rate of 20 p.c. per mensem.¹

A disregard of the maximum limits is punished with fines payable not only by the money-lender and the intermediary, but also by the witnesses to the transaction.²

Consuls Sulla and Rufus fixed the rate of interest at 12 p.c. per annum... By a decree of the Senate in s.c. 50 this became the legal limit throughout the Roman provinces."

Diodorus the Sicilian, who visited Egypt in the middle of the first century B.C., gives us some information about the early Egyptian law on this point: "For those that lent money by contract in writing, it was not lawful to take usury above what would double the stock, and that payment should be made only out of the debtor's goods, but his body was not to be liable in any wise to imprisonment; and those were counted the debtor's goods which he had either earned by his labour, or had been bestowed upon him by the just proprietors." (Diodorus, vol. i, Bk. I, ch. vi, p. 81: transl. by C. Booth.)

¹ "दश्यणा कानारकाणां." Yājñ. uses the word कानारम in a similar context—

कानारगासु दशकं सामुद्रा विश्व स्तरम् द्युक्षा सकता हिंद्रं सर्वे सर्व्यासु कातिषु—II, 89. १ ततः परं कर्तुः कारियतुच्च पूर्व्यस्साचसद्यः। श्रोतृषामे-कैकं प्रत्यर्थदण्डः।

The interest on grain in seasons of good harvest shall not exceed more than half its quantity when valued in money; that on the capital contributed by the members of a commercial company shall be one-half of the profit and be payable as each year expires. In case of partners who by long absence or by maladies such as idiocy are disabled from participation in the business, they may be discharged from partnership by being paid twice the amount of their original capital.¹

A person claiming interest when it is not due, or claiming as principal the sum-total of the real principal and interest, shall pay a fine of four times the amount under dispute. False claims were punishable with fines of four times the amount falsified. If both the debtor and the creditor mis-state their claims, the punishment is divided between them in the proportion of 1:3.

The following persons were exempted from

¹ The text is चिर्प्रवासं समाप्रविष्टो वा मूखदिगुणं द्यात्।
p. 174. It seems that "समाप्रविष्टः" should be "समाप्रविष्टं."
In "वाचसारा," "समा " has been explained as "जज़ता,"
by which no doubt such maladies as insanity, idiocy, etc., are
meant. One suffering from these would be समाप्रविष्ट.

payment of interest: (i) persons engaged in long-continued sacrifices, probably in view of the general good believed to have been produced thereby; (ii) the diseased; (iii) those detained in the house of their preceptor for studies; (iv) minors; and (v) the indigent.

The repayment of debts is also subject to the following rules.¹ The creditor is fined 12 panas if he refuses to accept in proper time the sum due, unless the refusal be founded upon some adequate grounds. Moreover, in case of refusal, the sum tendered may be deposited by the debtor with some third person, and no interest accrues upon it for the time subsequent to the date of deposit.

The creditor is liable to a penalty for want of diligence on his part to realize his money within ten years next following the due date; for after this period the loan is barred by limitation. But exceptions are made in favour of (i) the senile, (ii) the diseased, (iii) the dis-

¹ Cf. Yajñ., II, 45: "If a creditor, for the multiplication of his own money, does not take it when offered back by the debtor, and if the latter deposits it with an umpire, interest ceases from that date."

CH. X.] ANCIENT HINDU POLITY 177

tressed, (iv) minors, (v) sojourners in other countries, (vi) persons who have forsaken their country (देशलागी), and (vii) those who are prevented from claiming their dues owing to political or other disturbances.

The sons of a deceased debtor shall repay the principal with the interest thereon. If the deceased have no sons, the debts shall be paid by those who inherit his property; or the debt shall be paid by the surviving joint-debtors if it were contracted jointly with them. Where there are sureties for payment, they shall be held liable.

The rules as to surety for payment of a debt are: A minor cannot stand as surety. If there be no restrictions in the contract of surety as to time or place, it shall be borne by the sons, grandsons, or any persons inheriting the property of the deceased surety in case the debt be not paid by the debtor. They have also to bear the liability of the deceased person as surety in regard

¹ प्रेतस्य प्रचाः क्वसीदं द्युः । दायादा वा रिक्यचराः सच्या-चिषः प्रतिसुवी वा ।

Of. Yajn., II, 51, 52; Vishnu, VI, 27, 28 ff.; Manu, VIII, 166; Narada, I, 2 ff.; and Brihaspati, XI, 48 ff.

to (i) personal services, (ii) marriage-dowry, and (iii) transactions concerning immoveable property.

When there are several debts owing by a single person to several creditors, two creditors cannot sue the debtor simultaneously except in the case of resistance by the debtor, and in the suit the order of the debts has to be proved before the court.

No suit for debt can lie between husband and wife, father and son, and brothers of undivided interests. Cultivators and Government servants cannot be apprehended during working hours for debts contracted by them. The wife is not as a rule liable for the debt of her husband even if it be acknowledged by her, except in the case of debts due to herdsmen and cultivators.2

A husband is liable for the debt of his wife, and if he absconds without making any provision for the debt, he shall be fined with the

¹ प्रतिष्ठमान—resisting. (Monier Williams.)

² The meaning of this exception is to safeguard the interests

of these useful occupations for the benefit of the public.

The text has चर्चीति. Yájñ. uses the word चर्चीरिन्
(I, 168) in the sense of "a cultivator who takes half the crop for his labour."

CH. X.] ANCIENT HINDU POLITY 179

highest amercement. If he denies the debt, witnesses are depended upon.¹

§ 4.—DEPOSIT, ETC.

The next item for our consideration in connexion with contract is the law relating to deposits.

There were two kinds of deposit, viz.:-

- (i) Sealed (जपनिष) and
- (ii) Open (निचेप).

A sealed deposit, according to Yajnavalkya, is an article enclosed in a box under seal which the owner delivers into the hands of the depositary without saying anything as to its nature.² An open deposit is not put under any cover, and the nature, quality, form, etc., of the

The commentary (in Colebrooke, i, 272) on Narada cited in

¹ In the Sanhitâs, e.g. in Yâjñ., II, 47 and 49; Nârada, I, 18, 19; Brihaspati XI, 50, 53; and Vishņu, VI, 82, 87, the husband is not as a rule liable for the debt of his wife unless it be contracted for the benefit of the family. Among herdsmen, washermen, hunters, distillers of spirit, etc., the husband is invariably liable for the wife's debt, because "the income of these men depends on their wives, and the household expenses are borne by them also."

² Yâjñ., II, 66 (M. N. Dutt's ed.); also Nârada, II, 5 (S. B. E.). Brihaspati, XII, 8 (S. B. E.), runs thus: "When a chattel enclosed in a cover and marked with a seal is deposited without describing its nature or quantity and without showing it, it is termed an aupanidhika deposit."

article deposited are known to the depositary at the time of making the deposit.

The rules as to sealed deposits apply mutatis mutandis to open deposits, and vice versa.

The acceptance of deposit is gratuitous, but the depositary is responsible for its safe custody. If he puts it to his own use, he has to pay a compensation (भोगनेतन) fixed according to the circumstances of the case, in addition to a fine of 12 paṇas. If use by the depositary or his carelessness diminishes the value of the article deposited, the loss has to be made good and the fine doubled. If it be either pledged, sold or wasted by him, a fine is imposed; if exchanged

the Mitâksharâ should be noticed: "'Nârada cited in the Mitâksharâ': When a thing is deposited under seal, without mentioning its quantity, if its kind and form be unknown, it is considered an *upanidhi*; but the wise call a specified deposit nikshepa.

[&]quot;'It its kind and form be unknown': if the depositary know not whether it be gold or silver or what. 'Under seal': secured by a private knot to prevent its being taken by another person, or secured by the impression of a seal on which particular letters are engraved; when a thing is so deposited, the bailment of it is upanidhi. A specified deposit (or the bailment of a thing of which the quantity, kind and form are mentioned) the wise call nikshepa."

¹ The fine is चतुर्गेषपचननः. I have already pointed out the difficulty of giving a meaning to पचनन consistent with its use in other passages, e.g. that at p. 176, Arthasastra.

CH. X.1 ANCIENT HINDU POLITY 181

or wilfully destroyed, its value is realized from the depositary. He is, however, exempted from liability if the deposit is lost, destroyed or damaged through no laches on his part, e.g.¹ by the ravages of hostile kings, wild tribes, or other invaders; by vis major such as flood or fire; or, during transit at sea, by the ship sinking or being plundered by pirates.

The deposit must always be returned to the actual depositor; otherwise the depositary is answerable.² If the depositary denies having received the deposit, the antecedent circum-

े प्रत्यस्मातं वा नोपनिधमशासवेत्॥ (p. 178, ibid.). This passage most probably contemplates the destruction of the deposit along with the property of the depositary, in which case neither the deposit nor compensation can be demanded from him by the depositor. This meaning of the passage enables us to distinguish the case from those of destruction of the deposit by vis major, etc., at p. 177, which also excuse the depositary from all liability. The interpretation of the passage, viz. "When the depositary is either dead or involved in calamities, the deposit shall not be sued for," is opposed to all reason and justice; for, should not the heirs who get possession of the deposit along with other articles of the deceased, or the depositary himself though involved in calamity, be held responsible for the return of the deposit?

For a parallel to the meaning that seems to me more reasonable, vide Narada as quoted in Colebrooke, i, 282: "What is lost together with the property of the bailee is lost to the bailer; so if it be lost by the act of God or of the king, unless there was a fraudulent act on the part of the depositary."

² Cf. Manu, VIII, 185.

stances are examined; moreover, Kautilya by way of example mentions a few dodges which are employed in such cases to find out the truth, and which are similar to those enjoined by Manu. These artifices are meant for the protection of unwary people against the wiles of dishonest depositaries. The artisans, says Kautilya, are a class of this sort. They are very clumsy and incautious in their dealings, and make deposits without any evidence, documentary or otherwise. It is for such people specially that the aforesaid procedure is meant. Manu prescribes that "on failure of witnesses, let the judge actually deposit gold with the defendant under some pretext or other, through spies of suitable age and appearance, and afterwards demand it back. If the defendant restore it in the manner and shape in which it was bailed, there is nothing of that description in his hands for which others accuse him. But if he restore not that gold. as he ought, to those spies, then he shall be compelled by force to restore both the deposits."1 The honesty of the bailee in the second transaction is taken as an index of his integrity in

¹ Manu, VIII, 182-184.

the first. This is the key to the various means mentioned by Kautilya for testing the honesty of the bailee. When a defendant denies having received an open deposit, for which there is no evidence, the plaintiff, with the sanction of the judge, takes a few men to the house of the depositary, stations them in a secret part of the house, but within hearing, and then goes to the bailee as if alone; and in the course of conversation with him tries to make him say the truth. The plaintiff may very likely succeed in the attempt, for the bailee does not know that he is being overheard by other people who will bear witness against him. If he unwarily says anything that may favour the plaintiff in his claim, the judge uses it when deposed to by the witnesses.

Another method used to elicit the truth is to employ a spy, who, in the guise of an old, diseased merchant, appears before the defendant depositary as if after a long journey through a forest, or in the middle of his professional tour, and seeks as a measure of relief to leave with him his chattels secretly marked. After some time he sends his brother or son to take back the articles. If they are re-

turned quietly, the bailee proves himself honest; if not returned, he is found guilty in this as well as in the previous transaction and visited with the punishment prescribed for theft.

A third trick employed for the same purpose is that of a spy, in the guise of a respectable gentleman bent on renouncing the world, leaving an article in the hands of the defendant bailee. After a while he returns and claims it. If it is not returned, the bailee is punished as above.

Similarly, a spy may pretend to be a simpleton, and at night represent to the defendant bailee that for fear of being arrested on suspicion by a police officer for carrying an article through the streets, he wishes to leave it with him. Accordingly, he leaves it in his custody. But, in spite of this precaution, a police officer (who seems also to be employed to help him in this artifice) arrests him and puts him in $h\hat{a}jat$, whence he demands the deposit back. If the bailee restores it, well and good; otherwise, he is punished.

In these cases the chain of transactions by which the article in dispute passed into the defendant's possession, the validity of those transactions, and the social and financial position of the plaintiff are carefully examined.

These artifices, it seems, were more frequently needed for cases of open deposit than for those of sealed deposit, the reason being that open deposits were often made in a hurry, the depositor having hardly any time or opportunity for taking precautions as to witnesses, etc.¹

Pledge (चाचि).

Kautilya does not expressly mention the rules to be followed when the article pledged is used, sold, pledged, lost or misappropriated, but leaves them to be inferred from the allied rules laid down in connexion with deposit. If the pledge be coupled with the condition that it will be used by the pledgee, then the pledgor can release it at any time he likes, and no interest is charged. In other cases the time is limited, and the interest accrues due

¹ The materials for this part of the section have been drawn from Bk. III, pp. 177, 178, 180, 181, except where otherwise indicated.

for the period. A pledgee who refuses to return the pledge when duly demanded back by the pledgor is fined 12 paṇas. If the latter goes to release the pledge at a time when the former is away from home, he can redeem it by paying the money to the elders of the village; or the then value of the pledge being ascertained, it may be left where it is, and interest ceases to accumulate. If there be an apprehension that the pledge may depreciate, it may be sold, with the permission of the court, in the presence of the superintendents of pledges (() or of special Government officers (for whom, see infra³), or in the presence of the pledgor alone.

Mortgage.

A piece of mortgaged immoveable property may be of two kinds, viz. (i) yielding income without any labour, (ii) yielding income after labour being spent on it. When the money lent, as well as its interest, has been realized

¹ Cf. Yâjñ., II, 63.

³ Yâjñ., II, 64.

⁸ **चनाम्बर्याः,** lit. officers who provided against loss or destruction.

from the income of the mortgaged property, it shall be returned to the mortgager with its value undiminished. If the mortgagee enjoys the mortgaged property without the sanction of the mortgagor, then it shall be returned with compensation for such enjoyment, after the capital lent is realized.¹

The rest of the incidents of mortgage are like those of deposit, with the necessary modifications. As regards the mortgage of lands, the restriction is that the revenue-paying lands can be mortgaged only to holders of such lands, and Brahmadeya (i.e. given away to Brahmans) lands only to owners of similar lands.²

Adesa (bill of exchange), etc.

Two other forms of contract next engage our attention, viz. Âdeśa (पारेश) and Anvâdhi (पारेश). An âdeśa is literally an order, and it seems to mean an order to a third person to pay up a sum of money on behalf of the sender of the order. It is akin to a modern bill of exchange in its simplest form. Anvâdhi is, as

¹ Cf. Yájň., II, 68, p. 178, Arthaśástra.

² Bk. III, p. 171.

Kâtyâyana puts it, "a bailment for delivery." Its incidents, according to Kauţilya, are as follows:—If a person entrusted by a merchant with an article for delivery to a third person does not reach the destined place, is robbed on the way by thieves, breaks the article or abandons it, the merchant shall not be responsible; nor the kinsmen of the carrier if he dies on the way. Kauţilya does not expressly mention other incidents of these two forms of contract, but leaves them to be inferred from those of deposit.

In loan for use (याचितक) 2 and hire (चवक्रीतक), the article which forms the subject of the transaction has to be returned to the owner in the state in which it was received; but if it be lost or destroyed by lapse of time, by flood, fire or rough transit, by being confiscated by the State or stolen by thieves, it need not be made good.³

¹ Colebrooke, vol. i, p. 278. "Kâtyâyana: 'When a thing is bailed with these directions, viz. deliver this, as by my desire, to such a man when he shall demand it for his own business, it is called anvâdhi.'"

² Vide Colebrooke, vol. i, p. 278; for fine prescribed for not returning article hired or borrowed, vide Bk. III, p. 198, Arthasâstra.

³ Bk. III, Arthasastra, p. 198, adds: "When a person does not return at the required time or place the property that has been hired or borrowed, pledged or deposited, he is fined 12 panas."

CH. X.] ANCIENT HINDU POLITY 189

The rules of *open deposit* apply to these two forms of contract as far as possible.

Contract of service.

People near at hand should be called to witness the nature of the contract between a master and a servant. The wages fixed by mutual agreement shall be paid to the servant, but if no such wages have been fixed, then it will be in proportion to the time spent and the quality and quantity of the work done. If the wages be not settled, a cultivator shall generally obtain one-tenth of the crops grown by his labour, a herdsman one-tenth of the butter clarified by him, and a commercial agent one-tenth of the business transacted by him.¹

Artisans, artists, musicians, physicians, buffoons, etc., shall each get wages like others of his profession, or such wages as will be fixed by experts on evidence adduced. If no evidence be produced, it will be in proportion to the work performed. Fines are imposed for non-payment of wages, as also for denial of wages due.²

¹ Bk. III, p. 183, Arthaśâstra.

² Ibid., p. 184.

A servant neglecting or not doing work for which he has been paid is fined 12 panas. When incapable of working, or refusing to work on the ground that he is diseased, distressed or that the work is servile, he may get exemption, or take leave to have the work performed by a substitute whose wages will be in proportion to work done by him.1 An employer refusing to accept the work duly performed by a workman, as also an employee not doing the work for which he has been engaged, is fined 12 panas, and the latter must never desert his work for a more lucrative job elsewhere. If an employer does not accept the services of a workman who according to contract presents himself for it, the latter will be deemed to have done his full duty. This is the view of some legal authorities, but Kautilya differs from them, and holds that wages should be given only for work actually performed and not for that left completely unfinished. If, however, the employer works the labourer ever so little and then unreasonably dismisses him, the unfinished work will be looked upon as finished and wages cal-

¹ Lines 1 and 2, p. 185 of the text, seem to be defective.

culated accordingly. Variations of time or place are sufficient grounds for the annulment of a contract for service, and any work in excess of what is contracted for goes for nothing.

These rules also apply to workmen who have formed themselves into an association, with this difference that a grace of seven days is allowed them after the fixed period, after which they can have the work done by substitutes. Without the leave of the employer, they must never leave anything in the place of work or remove anything therefrom; for the former offence the fine is 12 paṇas, and for the latter 24. The members of an association may each receive the wages agreed to by him, or may divide the total wages earned by them all equally among themselves.¹

An agricultural labourer refusing to work for the person by whom he has been called from a different place, is fined twice the amount of his wages, and double the price of food and drink with which he may be provided. If he has been called for work in connexion with a sacrificial performance, he is fined twice his

¹ For the above, vide Bk. III, pp. 184, 185, Arthasastra.

wages on his refusal to work. The fines thus realized go to the village fund.¹

Partnership.

(a) Traders or cultivators who engage in work after joining partnership shall apportion among themselves the profits, after the performance of the work in hand and before entering on a fresh one. The performance of work by a substitute does not abate the share of profit due to a partner. The traders shall have shares of profit of the partnership business immediately after the commodities in stock are sold out. The losses sustained by the goods during transmission are to be borne by the partners equally.

A partner deserting his work is fined 12 paṇas, for he cannot withdraw from the business at will after it has been commenced. Theft committed by a partner for the first time should be pardoned and his dues paid; but a second such offence, as also his second untimely withdrawal, causes his expulsion from partnership. In grave offences, he is, in addition, treated as a criminal.

¹ Bk. III, p. 173, ibid.

The shares of profits of the partners may be equal or otherwise, according to contract among themselves.¹

(b) Priests officiating at a sacrifice shall share their earnings equally or as agreed to, over and above what may be specially due to each for his portion of work.

In sacrifices like Agnishtoma:-

A priest dying after the rite of Consecration is entitled to one-fifth of what he would have received for his full work.

A priest dying after the rite of Somapurchase is entitled to one-fourth of what he would have received for his full work.

A priest dying between the rite of Madhyamopasat and end of that of Pravargyodvâsana is entitled to one-third of what he would have received for his full work.

A priest dying after the rite of Maya is entitled to one-half of what he would have received for his full work.

A priest dying after the rite of Prâtaḥsavana (libation of Soma during Sutya ceremony) is entitled to three-fourths of what he would have received for his full work.

¹ For the above, vide Bk. III, pp. 185, 186, Arthasastra.

A priest dying after the rite of Madhyandina is entitled to the whole share, for by that time the sacrificial fees are all paid.

In every sacrifice except Brihaspatisavana the sacrificial fee is paid.

The above rules also apply to the fees paid during the series of sacrificial days called Ahargana.

During the ten days immediately following the death of an officiating priest, his work is performed either by those who are given their dues from the remnants of the offerings after the share of the deceased is paid, or by those who enjoyed his confidence.¹

The death of the sacrificer himself must not put an untimely stop to the sacrifice: the priests are bound to finish it. The desertion of a priest or a sacrificer, one by the other, is punished with the first amercement. If the priest be a Brâhman who does not maintain a perpetual sacred fire, he is fined 100 paṇas, while the head priest and the sacrificer are each fined 1000 paṇas for such offence.

¹ The time-limit is ten days, because the near relatives of the deceased remain in mourning during the period. They continue the work after the lapse of the period.

CH. X.] ANCIENT HINDU POLITY 195

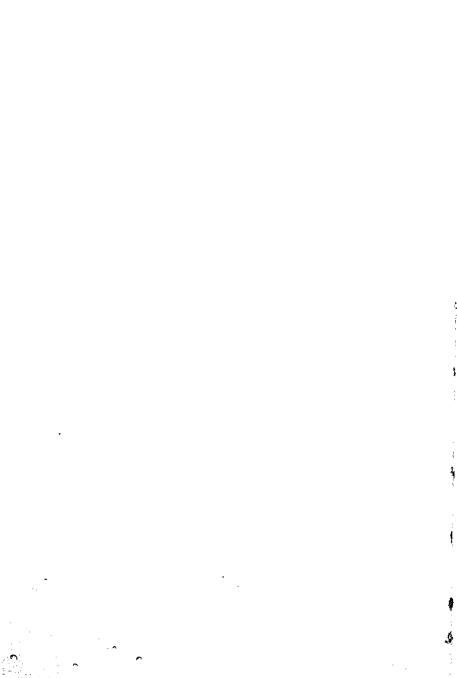
As a sacrifice is defiled if an officiating priest happens to be the husband of a Sûdra wife, a thief, spirit-drinker, Brâhmaṇ-slayer, violator of teacher's bed, or receiver of condemned gifts, it is no offence to dispense with his services.¹

Contracts of common interest.

If preparations are made for a public entertainment, an individual may help it up at will, either by subscription or otherwise; but in case he does not join it, then he and his dependents lose the right of enjoying it. Seeing or hearing stealthily at the place of entertainment is punishable with fines.²

¹ For the above, vide Bk. III, p. 186, Arthaśastra.

² Bk. III, p. 178, Arthaśâstra.



INDEX.

A.

Advocacy of temperance, 103, 104. Agents and principals, 154. Anvādhi, 187. Arrest of debtors, 178.

B.

Bill of exchange, 187. Bråhman condemned to the mines, 10, 11. Bridges, 84, 85.

C.

Calling of witnesses, 132.

Canal, 13.

Capacity of parties to contract, 151-153.

Capture of elephants, 54-57.

Census—a permanent institution, 107.

Census in ancient countries other than India, 115, 116.

Census officers, 107-109.

Ceremonies for the welfare of elephants, 66.

Ceremonies for the welfare of horses, 51.

Checks upon judges, 127, 128, 133, 134.

Chief officers in the department of live stock, 18.

City census, 111, 112.

Classes of chariots, 76.

Classes of courts, 117–121.
Classes of medical experts, 91, 92.
Classes of mines, 5.
Classes of roads and trade routes, 71–75.
Classes of water routes, 80, 81.
Classification of horses, 39–41.
Cempetent witnesses, 129, 130.
Contracts of common interest, 195.
Contract of service, 189–192.
Conveyances, 75–77.
Crew, 84.

D.

Daily routine for elephants, 59, 60.

Deceased debtor and suretyship, 177, 178.

Deposit, sealed and open, 179, 180.

Detection of lost articles, 168, 169.

Dietary of bulls, etc., 22-24.

Duties of superintendent of horses, 39.

E.

Escape of a culprit from lawful custody, 134. Exceptions to the four kinds of "void contract," 142-145.

F.

Famine and relief measures, 97-99. Fees for witnesses, 132. Fines for blocking passage, 75. Fines for "void contracts," 145. Fire, 100-103. Floods, 99.

INDEX

Four basal factors in the administration of justice, 122, 123 Functions of village census officers, 108, 109. Functions of census "overseers" or spies, 109–111.

G.

Gamekeeper, 34, 35. Grant of jagirs, etc., 104.

٩

H.

Hire, 188. Hospitals, 91. Hunting forests, 37, 38. Husband liable for wife's debt, 178.

I.

Intercourse with distant places, 86, 87. Irrigation, 11, 12.

J.

Jail deliveries, 103.
Jurisdiction of courts, 118-120.

K.

Kautilya—where educated, 97. Kinds of ships and boats, 81-83.

L.

Land survey, 112, 113.

Laws regarding medical practice, 93, 94.

Legality of object and consideration of contract, 145–147.

Loan for use, 188.

M.

Measures for prevention of diseases, 94, 95.

Medical aids, 88-92.

Medicines in the royal household, 92, 93.

Medical treatment of cattle, 26, 27.

Medical treatment of elephants, 65, 66.

Medical treatment of horses, 49.

Method of testing horses, 41, 42.

Meteorology, 14, 15.

Mining, 5.

Mining superintendent and his work, 5-10.

Mine taxes, 10.

Minor means of water-carriage, 84.

Miscellaneous rules for the department of horses, 50, 51.

Miscellaneous rules regarding means of communication, 77, 78, 85.

Modes of irrigation, 12.

Mortgage, 186, 187.

0.

Oaths, 130, 131.

Offences regarding loans, 175.

Offence termed paroktadosha, 124.

Officers in the department of elephants, 54.

Ornaments for elephants, 65.

"Overseers," 108,

P.

Palæsimundu, 87 f.n.

Partnership, 192-195.

Pecuniary dealings of women, 153.

Period of prescription, 164.

Persons exempted from payment of interest, 175, 176.

Pests, 99.

Pledge, 185, 186.

Post-mortem examination, 95, 96.

Precautions for the health of the king, 95.

Pre-emption in ancient India, 160, 161.

Preliminary, 1.

Principals, 154.

Procedure for sale of immoveable property, 156, 161-164.

- Prohibition of cow-slaughter, 28.

Prohibition of two suits for the same offence, 126.

Prospecting of mines, 6.

Protected animals, 35, 36.

Protection of the helpless, 105.

Punishment of departmental offences, 135.

R.

Rain-gauge, 14.

Rates of interest, 171-175.

Rations of elephants, 60, 61.

Rations of horses, 44-46.

Realization of money by creditors, 176, 177.

Rescission of sale, 165, 166.

Refusal to perform contract of sale of moveables, 164-166.

Register of cattle, 21, 22.

Registration of horses, 39-41.

Registration of particulars regarding suits, 124.

Repayment of debts, 176, 177.

Requisites of valid contract, 136-141.

Restrictions on contract, 141, 142, 150-152.

Restrictions on sale of immoveable property, 163.

Roads, 69-75.

Roads in forts, 74.

"Royal Road," 70.

Rules against dishonest depositaries—dodges, 182-185.

Rules for grazing grounds, 28-33.

Rules regarding deposit, 179-183.

Rules regarding witnesses, 126, 127.

S.

Sale of moveables, 164.

Sale through agents, 166, 167.

Sanskrit texts bearing on pre-emption, 156-158.

Scope of census, 113, 114.

Scribe, 134.

Seats of law-courts, 121.

Sifting of evidence, 131.

Sluice-gate, 12.

Sources of supply of elephants, 57, 58.

Stables for elephants, 58.

Stables for horses, 42-44.

Stabling staff in the department of elephants, 59.

Suits for debt, 178.

Suit not dismissed for want of witnesses, 128.

Superintendent for grazing grounds, 28.

Superintendents for metals, 9, 10.

T.

7

Terms for tending cattle, 19, 20.

Ten remedial instruments, 101.

Training of elephants, 62-65.

Training of horses, 46-49.

Trial of judges, 135.

U.

University of Takshasilâ, 96, 97.

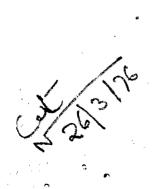
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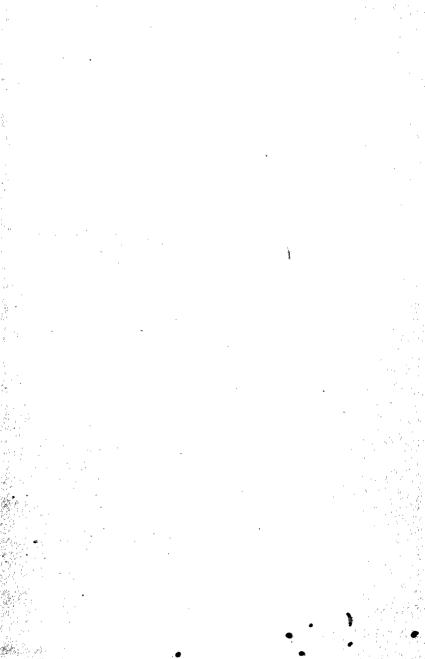
Vehicles and conveyances, 75-78. Vicious elephants—means for keeping under control, 64, 65.

w.

Windmill, 12.
Wooden architecture, 100, 101.









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